U.S. ARMY CORPS OF ENGINEERS
CIVIL WORKS PROGRAM

CONGRESSIONAL SUBMISSION
FISCAL YEAR 2004

NORTHWESTERN DIVISION

Budgetary Information Not To Be Released
Outside the Department of the Army until 3 February 2003

Justification of Estimates for Civil Function Activities
Department of the Army, Corps of Engineers
Fiscal Year 2004

NORTHWESTERN DIVISION

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SUMMARY NORTHWESTERN DIVISION

	FY 2003 Allocations		FY 2004 Request		Increase or Decrease
General Investigations					
Surveys	TBD	1/	$ 5,245,000		TBD
Preconstruction Engineering and Design	TBD		1,255,000		TBD
Subtotal General Investigations	TBD		$ 6,500,000		TBD
Construction, General					
Construction	TBD		$ 178,900,000		TBD
Dam Safety Assurance	TBD		1,400,000		TBD
Major Rehabilitation	TBD		10,113,000		TBD
Subtotal Construction, General	TBD		$ 190,413,000		TBD
Operation and Maintenance, General					
Project Operations	TBD		$ 107,832,000		TBD
Project Maintenance	TBD		128,463,000		TBD
Subtotal Operation and Maintenance	TBD		$ 236,295,000	2/	TBD
GRAND TOTAL, NORTHWESTERN DIVISION	**TBD**		**$433,208,000**		**TBD**

1/ To Be Determined.
2/ For Northwestern Division, North Pacific Region power projects, specific power costs and joint-use costs associated with power will be directly funded by Bonneville Power Administration.

3 February 2003

APPROPRIATION TITLE: General Investigations, Fiscal Year 2004 Northwestern Division

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

1. SURVEYS – NEW:
   a. Navigation Studies: None
   b. Flood Damage Prevention Studies: None.
   c. Shoreline Protection Studies: None
   d. Ecosystem Restoration: None.
   e. Watershed/Comprehensive Studies: None.
   f. Special Studies: None

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES:					
a. Navigation Studies: None					
b. Flood Damage Prevention Studies: The amount of $ 1,546,000 is requested to continue eight studies.					
IDAHO					
Boise River, Boise Walla Walla District	800,000	85,000	TBD	110,000	TBD

The Boise River is a tributary of the Snake River located entirely in Idaho. It is a snow-fed river with high flows in early summer months resulting from melting snow pack. The Corps of Engineers Lucky Peak Dam and reservoir is located on the Boise River, upstream of Boise, Idaho, along with Bureau of Reclamation's Anderson Ranch and Arrowrock projects. These three reservoirs are operated jointly for flood control and irrigation storage. These reservoirs were built between 1917 and 1955, and the total space is available for flood control as needed. A series of non-continuous non-Federal levees line the Boise River below Lucky Peak Dam, the lowermost dam, through developed areas in downtown Boise and in Garden City, Nampa and Caldwell within Ada and Canyon counties. Both the Boise River reservoir system and levee system through downtown Boise and Garden City provide a level of flood control well below the 100-year level. Several emergency flood fights and rehabilitation projects have been completed since the 1970's. The channel through Boise is a very sensitive environmental zone that make channel and levee improvements difficult.

The City of Boise and its foothills have experienced rapid growth and development over the past several years. Land use along the Boise River Basin is also changing due to urban and farming encroachment. Ada and Canyon counties were named as the nation's fourth fastest growing urban area. These conditions have impacted flood protection and water resources. An earlier reconnaissance study was completed in 1995, but the study has been inactive due to lack of sponsorship. These recent changes in growth have sparked a renewed interest and urgency in flood control, environmental restoration protection and to include habitat preservation of indigenous plants and animals as well as quality of life maintenance along the Boise River by Federal, State, and local governments.

This study will serve several communities within Ada and Canyon counties including the cities of Boise, Garden City, Nampa, Eagle, Caldwell, and Middleton. Local flood control districts are also interested in the study. Idaho Parks and Recreation is interested in environmental study efforts. The Community Planning Association of Southwest Idaho would be a potential project sponsor that would represent all of these interests. The Water Resources Development Act of 1999 is the study authority for this project.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

2. SURVEY STUDIES: (Continued)
   b. Flood Damage Prevention Studies: (Continued)

IDAHO, (Continued)

Boise River, Boise (Continued)

Fiscal Year 2003 funds will be used to continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,400,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. All or part of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,500,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	700,000
Feasibility Phase (Non-Federal)	700,000

The reconnaissance study was completed in April 2002. The feasibility study schedule for completion is TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
b. Flood Damage Prevention Studies: (Continued)					
IDAHO (Continued)					
Little Wood River, Gooding, ID Walla Walla District	473,000	73,000	TBD	100,000	TBD

The Little Wood River bank armoring project work began in the Fall of 1937. The project was funded by the Works Projects Administration (WPA) and was constructed by the Civilian Conservation Corps (CCC). The project ended in 1941 with the start of World War II. The armored channel was expected to be a "scenic drive" through the city of Gooding, ID. Considerable straightening of the river channel was performed. Along much of the length of the channel the walls were only built to the height of the surrounding grade. This armoring consists of relatively large basalt block roughly squared. Various areas include a wall of smaller uncoursed rubble topped by jagged basalt cresting. An above grade wall with forbidding cresting was put in place for safety reasons. The walls have historical significance and therefore must be repaired in a manner that resembles existing construction. The length of the channel that has this bank armoring is approximately 1.8 miles and is wholly located within the city limits of Gooding, Idaho. High flows and ice jams have severely damaged the walls causing localized failures. Erosion could cause damage to roads, bridges, and buildings if the localized failures are not repaired or replaced.

Original restoration plans include removing the existing rock walls and replacing with new concrete walls. An existing portion of the rock wall will be preserved for historical purposes. A removable chain link fence could be placed on top of the new wall. The fence could be removed in the winter for ice removal purposes.

The City of Gooding, Idaho is the potential sponsor for this project.

Fiscal Year 2003 funds will be used to continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. All or part of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$873,000
Reconnaissance Phase (Federal	73,000
Feasibility Phase (Federal)	400,000
Feasibility Phase (Non-Federal)	400,000

The reconnaissance study was completed in December 2000. The feasibility phase completion date is TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
b. Flood Damage Prevention Studies: (Continued)					
KANSAS					
Upper Turkey Creek, Merriam Kansas City District	1,357,000	232,000	TBD	229,000	TBD

The Turkey Creek basin encompasses parts of Johnson and Wyandotte Counties in Kansas, and Jackson County in Kansas City, Missouri. The basin consists almost exclusively of highly developed urban area. The basin collects rainfall from storm systems that often move through Johnson and Wyandotte Counties along the line of the basin's orientation. Flood flows from quickly concentrated runoff move down the Turkey Creek channel and its tributary streams and typically overflow at bridge restrictions and zones of inadequate channel capacity. The primary overflow points from the Turkey Creek channel during the 1998 flood were at the vicinity of 75th Street, downtown Merriam, I-35 at various points in the basin, at the Roe Lane Industrial Park, and the commercial/industrial zone along Southwest Boulevard in Kansas City, Kansas and Missouri.

Turkey Creek floods produced significant damage throughout the basin in 1961, 1977, 1993 and 1998. The flood of July 1993 caused one fatality in Kansas City, Mo and damages estimated at $3.4 million in Merriam, Kansas, and $20 million in the lower basin areas. The flood of October 1998 caused damages in Merriam, Kansas estimated at $12.0 M, and damages in the lower basin equivalent to 1993. Frequent flooding of Turkey Creek has caused severe damage to structures, inventory, infrastructure and transportation access, and intangible costs such as human suffering and inconvenience. The flood damage has contributed to significant revenue losses during periods of flooding. The long-term consequences of flooding include threat of loss of life, increased frequency of structure and inventory damage, slowed economic growth, possible escalation of vacancies in the area; higher costs associated with repairing flood damage, and interrupted transportation access.

The basin flood problem spans multiple city and county jurisdictions, and State lines. A unique opportunity exists to focus on basin wide comprehensive measures, to alleviate flooding or prevent future intensification of the flooding problem. Potential measures for consideration include zoning, ordinances, flood warning, relocations, flood proofing, detention structures, and structural flood damage reduction measures. Environmentally compatible concepts could be proposed to improve the basin environment and water quality in Turkey Creek and tributaries. All local agencies are currently focused on Turkey Creek Basin problems and are expressing strong interest in developing a basin-wide, comprehensive, multi-jurisdictional approach. Federal agencies such as FEMA and EPA have also expressed a desire to cooperate in this effort.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

2. SURVEY STUDIES: (Continued)
   b. Flood Damage Prevention Studies: (Continued)

KANSAS (Continued)

Upper Turkey Creek, Merriam (Continued)

A considerable body of current data is available from the study of flood damage reduction on the lower 3,900 feet of Turkey Creek, and from local agencies like Johnson County. This study would use available data on hydrologic conditions, basin development patterns, the basin environmental condition, and flood damageable property. Generalized estimates of costs and assessments of viability for potential measures basin-wide would be developed as a basis for selecting a plan to achieve the combined purposes of flood damage reduction and environmental restoration. The most recent expressions of interest and intent to cost share the Feasibility phase of the study were received from the City of Merriam, Kansas, in a letters dated October 22, 2001, and from Johnson County, Kansas, and the Unified Government of Wyandotte County/Kansas City, Kansas, in letters dated September 19, 2001. These organizations all provided representation to the team formed to negotiate and execute the Feasibility Cost Sharing Agreement on 24 Jun 2000.

The funds requested for FY 2003 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $2,464,000, which is to be shared equally by Federal and non-Federal interests. All or part of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$ 2,589,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	1,232,000
Feasibility Phase (Non-Federal)	1,232,000

The reconnaissance phase was complete in January 2002. The feasibility phase completion date is TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
b. Flood Damage Prevention Studies: (Continued)					
MISSOURI					
Kansas Citys Kansas City District	3,750,000	2,060,000	TBD	316,000	TBD

The existing Kansas Citys, Missouri and Kansas Local Protection Project consist of seven units along both banks of the Missouri and Kansas Rivers in the Kansas City Metropolitan area. These units were designed to protect intensely developed and heavily industrialized areas with a current estimated value of over $9 billion. In July 1993, floodwaters from both the Missouri and Kansas Rivers were within inches of overtopping several of the units and endangering life and the huge economic investment. People, equipment, and aircraft were evacuated from areas behind the units located at the confluence of the Missouri and Kansas Rivers due to fear of levee failure and overtopping. The project has prevented approximately $8.5 billion in damages through 1996 of which $3.9 billion were prevented in 1993 alone.

Based upon the 1993 flood, it is evident that the original hydrologic and hydraulic design data are no longer valid. The original design assumed the existence of three lakes in the Kansas River Basin that were never constructed. In addition, actual water surface elevations for specific Missouri River discharges are substantially higher than original design stage-discharge assumptions. An Initial Appraisal Report documenting the need for this restudy was completed in June 1995.

The local sponsors are the City of Kansas City, Missouri, the North Kansas City Levee District, the Kaw Valley Drainage District, and the Fairfax Drainage District. Formal letters requesting a restudy of the completed project were received from the City of Kansas City, Missouri, and the Kaw Valley Drainage District following the 1993 flood. Kansas City, Missouri, in a letter dated 30 May 1995, expressed understanding that the Feasibility phase of the study would be cost shared equally by Federal and non-Federal interests. Local interests and the Missouri-Arkansas Basin Association solicited support from their Congressional delegations to initiate the study in Fiscal Year 1998. Congressional redirection of the reconnaissance study resulted in a traditional reconnaissance approach in which the phase was completed in August 2000 by executing a FCSA/PMP on 18 Sep 2000. This study is authorized under Section 216 of the 1970 Flood Control Act.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

2. SURVEY STUDIES: (Continued)
   b. Flood Damage Prevention Studies: (Continued)

MISSOURI (Continued)

Kansas Citys (Continued)

The preliminary estimated cost of the feasibility phase is $5,800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. All or part of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$ 6,650,000
Reconnaissance Phase (Federal)	850,000
Feasibility Phase (Federal)	2,900,000
Feasibility Phase (Non-Federal)	2,900,000

The funds requested for FY 2004 will be used to continue feasibility phase, and the schedule for completion is TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
b. Flood Damage Prevention Studies: (Continued)					
MISSOURI (Continued)					
Wears Creek, Jefferson City Kansas City District	850,000	66,000	TBD	100,000	TBD

In a study performed in response to Section 101(a) of the Water Resources Development Act of 1976 (Public Law 94-587), flood damage reduction along lower Wears Creek was not feasible because the floodplain had been cleared for urban renewal and flood damages were low. Upstream of the urban redevelopment area, low levels of damage also precluded identification of a feasible structural flood control plan.

Since completion of that report, conditions have changed in four significant parameters that collectively represent a reasonable likelihood that flood damage reduction would be in the national interest. First, based on Wears Creek and Missouri River hydrology in effect at the time, Jefferson City has developed on the fringe of the 100-year flood plain. These developments include 2 large state office buildings and a state health laboratory as part of the State Capitol Complex and a commercial hotel development. Second, new Missouri River hydrology documents an increased discharge-frequency relationship compared to previous calculations. The risk to the flood fringe development is now greater than a 1-percent-chance event than previously defined. Third, recent hydraulic evaluations indicate that the stage for the 1-percent-chance event is higher than that determined in the studies conducted in the mid-1970's, therefore damages would also be considered greater for the similar discharge event. Fourth, the change in risk associated with Missouri River flooding is further complicated by the changed risk of flood on Wears Creek coincident with high Missouri River stages.

While all these factors affect the flood risk to development, they also affect the conditions on the developed and undeveloped green space in the lower Wears Creek basin and may present an opportunity for flood damage reduction coincident with environmental restoration in an urban setting. Application of modern risk and uncertainty analytical techniques in the Feasibility phase of study would integrate the data emerging on Missouri River hydrology and levee effects at the same time as the data were being released to characterize the current flood risk to downtown Jefferson City.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

2. SURVEY STUDIES: (Continued)
   b. Flood Damage Prevention Studies: (Continued)

MISSOURI (Continued)

Wears Creek, Jefferson City (Continued)

The flood of record in Wears Creek, Jefferson City, MO was the flood of 1993, which produced damages on both banks of the river estimated at more than $15 million. A separate figure for right-bank damages is not available, but considerable transportation interruption and property damage occurred there. The City of Jefferson corporate boundaries encompass both banks of the Wears Creek at this location. The City of Jefferson expressed interest in evaluating the flood risk in the Wears Creek downtown area by letter dated June 2, 1999.

The reconnaissance study is scheduled to be completed in February 2003. The preliminary estimated cost of the feasibility phase is $1,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. All or part of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$ 1,600,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	750,000
Feasibility Phase (Non-Federal)	750,000

The study would be conducted under authorization provided by a resolution adopted by the Senate Committee on Public Works on May 9, 1963. This resolution provides for study of flood and related problems on tributaries of the Missouri River.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
b. Flood Damage Prevention Studies: (Continued)					
NEBRASKA					
Lower Platte River and Tributaries, Nebraska Omaha District	2,850,000	2,466,000	TBD	191,000	TBD

The authorized study area is in the eastern third of the state of Nebraska. The area includes the Lower Platte River from just below the confluence with the Wood River to the confluence with the Missouri River, the Loup River from Fullerton to the confluence with the Lower Platte, Salt Creek from above Lincoln to the confluence with the Lower Platte, and the Elkhorn River from Norfolk to the confluence with the Lower Platte. There are two major and seven minor tributaries to the Platte River in the study reach, 27 communities, and several environmentally sensitive areas yielding a complex study. This area, about 750 square miles, with over 6,000 square miles of contributing area, is subject to frequent, severe flooding that causes estimated annual damages of nearly $14 million. Existing projects prevent about $6 million a year in damages. Significant flooding occurred 7-21 March 1993, forcing the evacuation of 1,400 people from their homes. The flood killed two people and devastated road and bridge systems, public and private utilities, and farm equipment and facilities. Interstate 80 near Lincoln was closed for more than 24 hours. The water system for the city of Lincoln was seriously damaged; and there was damage in the towns of Norfolk, West Point, Scribner, Winslow, Nickerson, Arlington, Waterloo, Fullerton, Columbus, Schuyler, and Cedar Creek. Damages totaled over $25 million. The declared disaster area included 14 counties. All damages occurred outside of the 13 existing flood protection projects in the basin. These projects prevented over $18 million in damages for this event alone, and prevented an additional $10 million in damages from the summer 1993 flooding.

The completed reconnaissance study reviewed hydrology of the Lower Platte River, including contributions from the Elkhorn and Loup Rivers; reexamined flood and related erosion and sedimentation damages, and formulated feasible alternative solutions. The Reconnaissance Report was completed in May 1996, recommending proceeding into the feasibility phase. The feasibility study was initiated with the signing of the Feasibility Cost Sharing Agreement in January 1998. Concurrence was received from HQUSACE to develop a scope of work that merges the Section 503 of WRDA 96, “Lower Platte River watershed, Nebraska,” with this study. Section 503 provides authority for technical, planning, and design assistance to non-Federal interests for carrying out watershed management, restoration, and development projects.

The State of Nebraska, the Nebraska Natural Resources Commission (NNRC), the Lower Platte South Natural Resources District (NRD), Papio-Missouri River NRD, and the Lower Platte North NRD are the cost sharing partners for the feasibility study and any resulting projects.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

2. SURVEY STUDIES: (Continued)
   b. Flood Damage Prevention Studies: (Continued)

NEBRASKA (Continued)

Lower Platte River and Tributaries, (Continued)

Fiscal Year 2003 funds will be used to continue the feasibility phase. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The estimated cost of the feasibility phase is $4,388,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,044,000
Reconnaissance Phase (Federal)	656,000
Feasibility Phase (Federal)	2,194,000
Feasibility Phase (Non-Federal)	2,194,000

The reconnaissance phase was completed in January 1998. The feasibility study schedule for completion is TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
b. Flood Damage Prevention Studies: (Continued)					
SOUTH DAKOTA					
James River, SD Omaha District	1,565,000	69,000	TBD	150,000	TBD

The James River basin has a total drainage area of 22,000 square miles. The drainage area from Jamestown and Pipestem Dams, which the Corps operates for flood control, is 1,900 square miles. The dams were authorized to provide flood damage reduction benefits in North Dakota, recognizing the lack of control over flooding in South Dakota. In South Dakota the James River winds through 450 miles and is the flattest river on the North American Continent. Floodwaters are retained in the basin for long periods of time. Extended releases of from 250 cfs to 1,800 cfs from the North Dakota reservoirs inhibit the drainage of lands adjoining the river through South Dakota, where the channel capacity in some reaches is as low as 250 cfs. Also, extensive flooding of extremely long duration has occurred during 5 of the last 10 years covering more than 100,000 acres. All or major portions of the James River valley have been declared Federal Disaster Areas from flooding during 1993 and 1995 through 1997. Flooding of this magnitude in several consecutive years is unprecedented in the period of record.

Through the years, since 1930, large projects have been opposed locally. Additional studies of large flood control dams or channelization plans will not be pursued because they are not likely to result in feasible projects. The study will focus on combinations of smaller-scale measures that would reduce flood damages and provide opportunities for wetland restoration. Recent severe flooding, multi-agency interest in the James River Valley, recent changes in the operation of the upstream reservoirs, and a focus on small-scale flood control and environmental restoration from a watershed perspective, all make this study different from previous Federal or State planning efforts. Flood control alternatives will be screened for their compatibility with the river's environmental resources. Some measures that are identified for restoring the environment may be pursued under other authorized ecosystem restoration studies. Measures are anticipated to include, but not be limited to, localized channel modification to remove channel blockages, removal/replacement of many, privately-installed small dams that may inhibit flood flows, realignment or set-back of locally-constructed levees, and selected sand bar removal. The result of the study would be a plan to minimize flood damages while restoring habitat. It is anticipated that implementation of the plan would be a multi-agency effort. The James River Water Development District is the local sponsor. The FCSA was executed on 28 October 2002.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

2. SURVEY STUDIES: (Continued)
   b. Flood Damage Prevention Studies: (Continued)

SOUTH DAKOTA (Continued)

James River, SD (Continued)

The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $3,800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. The cost share sponsor will provide their entire 50 percent requirement as in-kind service. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,865,000
Reconnaissance Phase (Federal)	65,000
Feasibility Phase (Federal)	1,900,000
Feasibility Phase (Non-Federal)	1,900,000

The reconnaissance phase was completed in October 2002. The feasibility schedule for completion is TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
b. Flood Damage Prevention Studies: (Continued)					
WASHINGTON					
Skagit River, WA Flood Damage Reduction/Ecosystem Restoration Seattle District	4,463,000	2,203,000	TBD	350,000	TBD

The Skagit River Basin is located in the northwest corner of the state of Washington, in Skagit County. The river and floodplain downstream of Sedro Woolley define the study area. Since 1908, 100,000 cfs, the maximum safe channel capacity, has been exceeded 17 times. In November 1990, the flood peaked at 152,000 cfs (9.4 feet above flood stage) at the city of Mount Vernon (river mile 12). During the most recent severe flooding in late November 1995, the flood peaked at 159,000 cfs at Concrete, the flood of record, and 135,000 cfs at Mount Vernon (9.3 feet above flood stage). Average annual flood damages total $67 million despite the fact that there are about 50 miles of existing levees in the study area.

At the request of Skagit County the Corps initiated another study to find a solution to the flooding problems in the basin. A Feasibility Cost Sharing Agreement (FCSA) was signed on 28 July 1997 with Skagit County. The current study is analyzing ring levees, overflow levees, and diversion channels. In addition, the study is also analyzing a variety of restoration features. The Skagit River has been identified by many as a prime location for substantial restoration of endangered salmonid species. Both the flooding issue and the potential for substantial restoration give this project high likelihood of successful implementation.

Fiscal Year 2004 funds will be used to continue the feasibility study, in particular the analysis and comparison of project alternatives and several environmental studies. The estimated cost of the feasibility phase is $7,800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interest. All or part of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$8,363,000
Reconnaissance Phase (Federal)	563,000
Feasibility Phase (Federal)	3,900,000
Feasibility Phase (Non-Federal)	3,900,000

The reconnaissance phase was completed in July 1997. The feasibility phase completion date is TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
c. Shoreline Protection Studies: None.					
d. Ecosystem Restoration Studies: The amount of $2,165,000 is requested to continue eight studies.					
OREGON					
Lower Columbia River Ecosystem Restoration, OR & WA Portland District	3,250,000	125,000	TBD	250,000	TBD

The Lower Columbia River extends from the mouth of the Columbia River to river mile (RM) 145 at Bonneville Lock and Dam; its estuary is classified nationally significant under the National Estuary Program (NEP). The river divides the states of Oregon and Washington throughout this area. The study area includes a 40-foot deep-draft federal navigation channel from the mouth to the Portland metropolitan area about RM 105 and a shallow draft channel upstream from that point. The Corps of Engineers' 125-year involvement with the Columbia system includes flood damage reduction, navigation, fish and wildlife, environmental restoration, hydropower, bank protection recreation and water supply improvements.

Over time, this basin has experienced considerable changes in water resource needs and uses. In addition, significant environmental degradation has occurred within the lower Columbia system. Modification of the system by human activities has led to a marked change in the hydrologic regime, and caused pollution and substantial losses of instream, riparian and wetland habitats, and a concomitant reduction in fish and wildlife resources. Flood control, water quality, navigation, water-related infrastructure, and ecosystem restoration needs have all been evaluated on a case by case basis. To date, three salmonid species from this region have been listed under the Endangered Species Act (ESA) and two additional species are proposed for ESA protection. Such listings have broad implications to existing water resource uses, and future developments. Historic losses of 52,000 acres of wetland/marsh habitats, 13,800 acres of riparian forest habitat and 27,000 acres of forested wetland habitat downstream of Portland have significantly impacted this ecosystem's ability to produce and sustain fish and wildlife resources. Much of this wetland loss can be attributed to the 84,000 acres encompassed by diking districts and the 20,000-acre increase in urban development that has occurred along the lower Columbia River.

A comprehensive, long-range approach to address water resource problems and opportunities for the Lower Columbia River is needed. Some of the key areas to be addressed in this comprehensive study include structural and non-structural flood damage reduction measures, wetland/riparian habitat restoration and stream and fisheries habitat improvement. Water quality, navigation, water-related infrastructure, and other ecosystem and water uses will also be addressed as part of this comprehensive study. It is imperative that reversals of these impactive trends occur now before further growth causes irreparable impairment of current water uses and ecosystem functions, and while regional interest and financial support is high. This comprehensive watershed study would serve as the catalyst to bring together and implement current efforts by a number of governmental and private organizations including the NEP, six state agencies from Oregon and Washington, four Federal agencies, recreation, ports, industry, agriculture, labor, commercial fishing, environmental interests and citizens. The

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

2. SURVEY STUDIES: (Continued)
   d. Ecosystem Restoration Studies: (Continued)

OREGON (Continued)

Lower Columbia River Ecosystem Restoration (Continued)

states of Washington and Oregon have agreed to jointly sponsor the study, and have written a letter of intent dated May 1998. Both states understand the cost sharing provisions associated with the feasibility phase study.

The reconnaissance study was completed in Aug 2001. Fiscal year 2004 funds will be used to initiate the feasibility phase, and the schedule for completion is TBD. The estimated cost of the feasibility phase is $6,000,000, which will be shared on a 50-50 percent basis by the Corps and the non-Federal sponsor. All or part of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$6,250,000
Reconnaissance Phase (Federal)	250,000
Feasibility Phase (Federal)	3,000,000
Feasibility Phase (Non-Federal)	3,000,000

The study was authorized by a resolution of the Senate Committee on Environment and Public Works dated 28 June 2000.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
d. Ecosystem Restoration Studies: (Continued)					
OREGON (Continued)					
Tillamook Bay and Estuary, OR Portland District	1,802,000	1,516,000	TBD	43,000	TBD

Designated as a significant tidal estuary in the National Estuary Project and a component of the Oregon Coastal Salmon Restoration Initiative (Oregon Plan), Tillamook Bay and its watershed are economically and ecologically valuable for the state of Oregon. Tillamook Bay is located in Tillamook County in northwestern Oregon, about 70 miles west of Portland. Five rivers: the Miami, Kilchis, Wilson, Trask, and Tillamook, all rise in the coast range and flow into the bay. The lower valleys of these rivers merge to form a broad alluvial plain to the east and south of the bay on which the city of Tillamook is located.

Four problems in Tillamook Bay and watershed have been identified by the Tillamook Bay National Estuary Project (NEP): 1) bacterial and pathogenic contamination; 2) sedimentation which affects freshwater and saltwater flows and habitat for shellfish and fish; 3) significant habitat degradation which affects salmon and trout spawning, increases stream temperatures, and contributes to bay sedimentation; and 4) flooding, which affects both human and environmental values. In the Oregon Plan, the Tillamook Bay system has been identified as having poor freshwater habitat for native coastal salmon. Modeling shows that some salmon populations may experience a higher risk of extinction because of this condition. In August 1998 coastal coho salmon were listed as threatened under the Endangered Species Act. Section 536 of the Water Resources Development Act of 2000 authorizes $30 million for implementation of NEP measures in Tillamook and the mouth of Columbia River.

Declared a Federal disaster area because of the February 1996 flood, Tillamook County suffered over $53 million in damage, which is the equivalent of 148 percent of the county's annual budget. The county suffered significant losses because of the disruption caused to U.S. Highway 101, the major North-South arterial along the coast. The lower portions of the rivers overflow frequently because channel capacity is inadequate to handle heavy flows during severe rainstorms when combined with high tides. The resulting flooding cut off access to U.S. Highway 101 and inundated, residential, commercial, and pasture areas. No vehicular access was possible between the north and south portions of the county; emergency and service vehicles could not go north and ambulances could not get to the hospital on the southwest side of the city. Even during the 98-99 flood season, which was considered relatively benign, damages due to flooding resulted in $5 million in the study area.

The reconnaissance phase was completed in August 1999. Key areas addressed in the reconnaissance report include opportunities to modify existing flood plain features, stream channels, and the estuary in order to restore natural wetlands, high value estuarine habitats, and coastal salmon habitats while reducing flood damages. Some of the measures to be considered include reconnecting wetland and flood plain areas with the rivers to absorb greater flood flows; channel Tillamook Bay and Estuary Ecosystem Restoration, OR modifications to restore flood capacity; restoring structural complexity in stream channels and the estuary; and riparian habitat development.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

2. SURVEY STUDIES: (Continued)
   d. Ecosystem Restoration Studies: (Continued)

OREGON (Continued)

Tillamook Bay and Estuary, OR (Continued)

A Feasibility Cost Sharing Agreement was executed in July 1999 with Tillamook County Soil and Water Conservation District (TCSWCD). Tillamook County requested to become the formal sponsor, which TCSWCD agreed to on 17 February 2000. The feasibility study will analyze in detail problems and opportunities associated with flood damage reduction and ecosystem restoration within the study area. A sophisticated hydrodynamic model will be developed to formulate and evaluate alternatives. An Environmental Impact Statement (EIS) will be prepared in conjunction with the feasibility study.

Fiscal Year 2004 funds will be used to complete the feasibility study. The feasibility phase completion is TBD. The estimated cost of the feasibility phase is $3,372,000, which will be shared on a 50-50 percent basis by the Corps and the Sponsor. Of the non-Federal share, $823,000 is in-kind services. After development of alternatives, we will consider the potential to implement alternatives under the Continuing Authorities Program. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,489,000
Reconnaissance Phase (Federal)	117,000
Feasibility Phase (Federal)	1,686,000
Feasibility Phase (Non-Federal)	1,686,000

The study was authorized by a resolution of the Senate Committee on Environment and Public Works dated 5 June 1997.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
d. Ecosystem Restoration Studies: (Continued)					
OREGON (Continued)					
Willamette River Environmental Dredging, OR Portland District	3,390,000	325,000	TBD	313,000	TBD

The Willamette River basin occupies a 12,000 square mile area in western Oregon. The 187-mile river begins in the Cascade and Coast Ranges and flows through local watersheds affected by logging, farming, and urban development before it empties into the Columbia River at Portland Oregon. From Willamette Falls at river mile 26.5 to the mouth at river mile 0, the river passes through the city of Portland where the waterfront is highly developed. Approximately 2 million people live within the lower Willamette River drainage from just above Willamette Falls to the river mouth. The lower Willamette River in Portland is also part of the Columbia and Lower Willamette Rivers federal navigation project. The project supports a thriving deep draft vessel shipping port in a regional economy where one in five jobs in the Portland/Vancouver area are related to export of grain, mineral resources or manufactured products. A yearly average of 7 million tons of grain is exported yearly through Portland, many through grain elevators on the Willamette River. The federal navigation project is maintained from river miles 0 to 14 and contributes to Portland being the tenth largest exporter in the nation. Petroleum products and mineral ores are the dominant imports at Willamette River facilities.

Industrial and urban activity in and along the waterway has adversely affected water and sediment quality. Degraded spawning and rearing and migratory habitats have contributed to declines of native populations of salmon, steelhead and trout. In March and April of 1999 the NOAA Fisheries listed five local fish populations as threatened under the Endangered Species Act, for the first time extending protection to populations in heavily urbanized areas within the Pacific Northwest. Two fish populations, the Lower Columbia River Chinook and Columbia River Chum salmon rear in urban streams. The Coastal Cutthroat spends much or all of their life in streams of the Columbia and lower Willamette up to Willamette Falls. Upper Willamette River Chinook and Steelhead rear and migrate through the lower Willamette River.

During the last few decades, much has been done to improve water quality in the river by reducing industrial and municipal point sources pollutant discharges. Efforts continue to remove water quality through eliminating combined sewer overflows and point and non-point pollution controls. Over the past few years the State of Oregon pursued cleanup of specific sites along the river that include impacted sediments. In 1998 the state began a comprehensive management plan,

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

2. SURVEY STUDIES: (Continued)
   d. Ecosystem Restoration Studies: (Continued)

OREGON (Continued)

Willamette River Environmental Dredging (Continued)

the Portland Harbor Sediment Management Plan and subsequent sediment investigation work plan to investigate and potentially remediate sediments in a six-mile reach of the Portland Harbor using the State of Oregon Environmental Cleanup Law. In December 2000 the US Environmental Protection Agency chose to place the Portland Harbor on the National Priorities List under CERCLA, placing investigation of the harbor under joint management with the state but under a Federal lead. The state will be the lead agency for upland contaminant source control, and the EPA will be the lead for the project and in-water work. The joint EPA investigation and cleanup project will identify and address site-specific contaminant sources and clean up sediment contamination where sediment exceeded health-based levels for the protection of human health and the environment. While these efforts represent a major step in the right direction, a significant opportunity exists for a cooperative venture to further leverage resources and focus on achieving restoration objectives through sediment remediation.

The study has been broadened from its original scope of environmental dredging to encompass environmental restoration on a watershed scale. The expanded objective of the study is to develop a publicly supported plan for ecosystem restoration actions throughout the Lower Willamette River including, ecosystem restoration, water quality improvement and environmental dredging. The feasibility study will analyze water-related ecosystem restoration opportunities within the Lower Willamette River system to identify, refine and prioritize potential restoration sites in the Willamette in coordination with other restoration and cleanup activities. The environmental dredging portion of the project would examine opportunities to remediate orphaned contamination, in the process a comprehensive sediment management plan would be developed. The feasibility study will also identify other ecosystem restoration opportunities that can be addressed under the Continuing Authorities Program.

The Port of Portland is the local sponsor and responsible party within Portland Harbor, engaged in negotiations with EPA to complete the CERCLA remedial investigation and feasibility study. The Port of Portland has provided a letter of intent to partner in this cooperative venture to address sediment contamination under both CERCLA and environmental dredging authorities. The Port understands the cost sharing requirements of the feasibility and implementation phases of the potential project and the requirements for polluter responsibility and liability. The City of Portland, also a responsible party within the Harbor, will be the non-federal sponsor for the ecosystem restoration portion of the study and is capable of meeting the cost sharing requirements of the feasibility and implementation phases.

Stakeholders include the Port of Portland, the City of Portland, other state agencies including the Department of Environmental Quality, and Department of Fish and Wildlife. Further collaboration with NMFS, the Environmental Protection Agency, the U.S. Fish and Wildlife Service, and other federal agencies would also occur.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

2. SURVEY STUDIES: (Continued)
   d. Ecosystem Restoration Studies: (Continued)

OREGON (Continued)

Willamette River Environmental Dredging (Continued)

Although there are two major Corps projects within the lower Willamette River, the navigation channel and the potential deepening of the channel as part of the Columbia River Channel Improvements study, neither project addresses improvement to sediment and water quality which could be accomplished by dredging. Both projects could benefit from improvements to sediment quality.

The reconnaissance study was completed in December 2000 and was amended in July 2002 to include other restoration opportunities in the lower Willamette River. The Project Study Plan will be completed based on a watershed approach and will be consistent with the work plan for the CERCLA remedial investigation.

Fiscal Year 2003 funds are being used to continue into the feasibility phase of study by executing a FCSA/PMP with the sponsor. Fiscal Year 2004 funds will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $6,000,000, which will be shared on a 50-50 percent basis by the Corps and the non-Federal sponsors. All or part of the non-Federal share may be in-kind services. The feasibility phase completion is TBD. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$6,390,000
Reconnaissance Phase (Federal)	390,000
Feasibility Phase (Federal)	3,000,000
Feasibility Phase (Non-Federal)	3,000,000

The study was authorized by Section 312 of the Water Resources Development Act of 1990, as amended by Section 224 of the Water Resources Development Act of 1999.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
d. Ecosystem Restoration Studies: (Continued)					
OREGON (Continued)					
Willamette River Flood Plain Restoration, Portland District	1,657,000	292,000	TBD	210,000	TBD

After a thirty-year absence, major flooding became a real and powerful presence in February 1996 for the Willamette River Basin in Oregon. Flood frequencies ranged from a 2- to 200-year event. Twenty-three counties were declared disaster areas. Cities suffering major damage include Portland, Tualatin, Lake Oswego, Salem, Keizer, Oregon City as well as many other communities. Damages throughout the state are estimated in excess of $286 million dollars, including about $40 million in housing losses, $30 million in business losses, $28 million in agricultural losses, and $188 million in local government facility losses. The existing Willamette reservoir system only controls about 27 percent of the basin runoff. The 1996 flood emphasizes an urgent need for additional flood damage reduction measures for the Willamette Basin. Traditional measures, such as large storage projects, are no longer practical or environmentally feasible. The proposed flood plain restoration project assesses opportunities to modify existing flood plain features in the Willamette Valley to reduce flood damages while restoring natural wetlands and promoting ecosystem restoration.

A conceptual study to assess the hydrologic feasibility and benefits of restoring flood plains for natural flood management in the Willamette Valley was commissioned in 1995 by River Network, a national non-profit conservation group. Their study concluded that feasible flood plain restoration opportunities exist to reduce flood hazards to homes, public structures and farms while allowing for fish and wildlife habitat restoration. A restored flood plain would act to absorb excess flood waters, slow the velocity of flood waters, and create habitat for a wide variety of plants and animals, including fish species, such as bull trout and Willamette spring Chinook salmon, petitioned for ESA listing. Numerous Federal, state and local entities have expressed strong support for this effort. Following the major flood event in February 1996, FEMA officials strongly promoted this concept as a promising approach for flood hazard mitigation. The State of Oregon is fully supportive of the proposed study and project, and the Governor's office is working with local groups to identify the appropriate state agency as the non-Federal sponsor. Environmental organizations, such as Oregon Trout and Ducks Unlimited, have expressed support and interest in the project. The flood plain restoration concept was favorably received when presented in local newspapers.

There is a high level of regional interest and financial support for flood damage reduction and ecosystem restoration measures. This flood plain restoration project offers an excellent opportunity to provide additional flood protection for the Willamette Basin through non-structural floodplain restoration measures. The proposed study and project focus on priority benefits of flood damage reduction and ecosystem restoration. The successful implementation of this project would encourage further private and public partnerships in the region in the prudent and beneficial uses of flood plains.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

2. SURVEY STUDIES: (Continued)
   d. Ecosystem Restoration Studies: (Continued)

OREGON (Continued)

Willamette River Flood Plain Restoration, OR (Continued)

The reconnaissance study (Section 905(b) Analysis) was completed in April 1999. Work is continuing on preparation of the Project Study Plan and Feasibility Cost Sharing Agreement. The feasibility phase completion is TBD. Fiscal Year 2003 funds will be used to continue into the Phase I feasibility study. The District is proposing taking a phased approach to feasibility studies. The first phase would use a comprehensive framework study of the entire Willamette Basin to be followed by sub-basin or reach specific feasibility studies in Phase II. The estimated cost of Phase I is $2,730,000, which will be shared on a 50-50 percent basis by the Corps and the non-Federal sponsor. All or part of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$ 3,022,000
Reconnaissance Phase (Federal)	292,000
Feasibility Phase (Federal)	1,365,000
Feasibility Phase (Non-Federal)	1,365,000

The study was authorized by a resolution of the House Committee on Public Works and Transportation dated 8 September 1988.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
d. Ecosystem Restoration Studies: (Continued)					
WASHINGTON					
Chehalis River Basin, WA Flood Damage Reduction & Ecosystem Restoration Seattle District	2,642,000	329,000	TBD	310,000	TBD

The Chehalis River Basin is located about 80 miles south of Seattle in central western Washington and includes portions of Grays Harbor, Thurston, and Lewis Counties. The Chehalis River rises in the southern Cascade Mountains and empties into Grays Harbor and the Pacific Ocean.

This study will evaluate flood reduction and ecosystem restoration measures for the entire Chehalis River basin, except for flood damage reduction. Centralia - Chehalis urban area that is being considered in the PED work for the Chehalis River at Centralia project. The watershed analysis being done by the Corps study process is very important to state and local agencies and is considered essential to meeting the needs of the basin governments to address issues raised by recent ESA listings.

Note that requested funding for this study is separate from the Chehalis River at Centralia project.

Flood damage reduction and ecosystem restoration are consistent with Administration policy. Authorization is Resolution # 2581, adopted 9 Oct 98, of the House Committee on Infrastructure and Transportation.

Fiscal Year 2004 funding will be used to continue the feasibility phase through formulation of alternatives. The estimated cost of the feasibility phase is $5,000,000, which will be shared on a 50-50 percent basis by the Corps and the non-Federal sponsor. All or part of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,142,000
Reconnaissance Phase (Federal)	142,000
Feasibility Phase (Federal)	2,500,000
Feasibility Phase (Non-Federal)	2,500,000

The reconnaissance phase was completed in Aug 2001. The estimated feasibility completion date is TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
d. Ecosystem Restoration Studies: (Continued)					
WASHINGTON (Continued)					
Puget Sound Nearshore Marine Habitat Restoration, Ecosystem Restoration Seattle District	6,125,000	354,000	TBD	350,000	TBD

The Puget Sound Nearshore study area is located in the tidal zone of the shorelines on Puget Sound in western Washington State.

The study purpose is to evaluate ecosystem restoration within Puget Sound nearshore environment. This study is strongly supported by multiple local, state, and Federal agencies, and is part of an ongoing effort to restore and improve anadromous fish habitat throughout Puget Sound, especially following the eight species of salmon Endangered Species Act listings of March 1999. The entire Puget Sound shoreline has been degraded. There has been extensive elimination of important intertidal, estuarian habitat and significant degradation of small perennial streams that flow into Puget Sound. Over the past 100 years, more than 95% of the original shallow water habitat has been lost.

Authorization is Section 209 of the Flood Control Act of 1962 (PL 84-874)

The reconnaissance phase was completed in September 2001. Fiscal Year 2003 funding would be used to continue feasibility studies and formulation of alternatives. The feasibility phase schedule for completion is TBD. The estimated cost of the feasibility phase is $12,000,000, which will be shared on a 50-50 percent basis by the Corps and the non-Federal sponsor. All or part of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$12,125,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	6,000,000
Feasibility Phase (Non-Federal)	6,000,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
d. Ecosystem Restoration Studies: (Continued)					
WASHINGTON (Continued)					
Walla Walla River Watershed, OR & WA (Columbia River Basin) Walla Walla District	3,121,000	729,000	TBD	439,000	TBD

The Walla Walla River is a tributary of the Columbia River. It is located in southeastern Washington and northeastern Oregon in Walla Walla, Columbia, and Umatilla Counties. Much local interest has been focused on this river from private irrigated agricultural, grazing and logging interests, local irrigation and soil conservation Districts, planning commissions from both counties, Washington and Oregon Departments of Fish and Wildlife, the Confederated Tribes of the Umatilla Indian Reservation, U.S. Fish and Wildlife Service, and USDA Natural Resource Conservation Service.

In May, 2002, the Confederated Tribes of the Umatilla Indian Reservation signed a FCSA and became the sponsor of this GI feasibility study. The purpose of this study is environmental restoration. The factor that will likely be addressed under this study is lack of instream flows. Water has been diverted from the streams of this basin for many years, and is the reason salmon are extirpated from this watershed. This will likely make it the primary limiting factor for environmental restoration in the basin. Effort will probably look at four measures to restore instream flows 1) off-stream storage (dams) 2) water exchange with the Columbia River 3) irrigation efficiency, and 4) purchasing water rights from willing sellers.

Fiscal Year 2003 and 2004 funds will be used to continue feasibility phase work with the CTUIR. The preliminary estimated cost of the feasibility phase is $5,168,000 which to be shared on a 50-50 percent basis by Federal and non-Federal interests. The CTUIR's entire cost-share will be paid for thru the use of work-in-kind. A summary of the cost-sharing is as follows:

Total Estimated Study Cost	$5,705,000
Reconnaissance Phase (Federal	537,000
Feasibility Phase (Federal)	2,584,000
Feasibility Phase (Non-Federal)	2,584,000

The reconnaissance study was completed in 1997. The feasibility study schedule for completion is TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
d. Ecosystem Restoration Studies: (Continued)					
WASHINGTON (Continued)					
White River, Ecosystem Restoration Seattle District	2,612,000	67,000	TBD	250,000	TBD

The White River Basin is located in western Washington to the south and east of Tacoma, and is a major tributary to the Puyallup River. At river mile 29.6, the Corps operates a flood control project, Mud Mountain Dam. This study, described by committee resolution in 2000 using the authority of Section 209 of the Flood Control Act of 1962 (PL 84-874), is to examine water resource issues in the White and Puyallup River basins, with particular attention to needs and concerns at Lake Tapps, a major body of water hydraulically connected to the White River. In FY 2002, Congress provided separate funding for the Lake Tapps effort, therefore the continuing White River study will focus on the remaining water resource needs and opportunities in the White and Puyallup river basins.

The White/Puyallup basins have experienced significant flooding and ecosystem degradation issues. Traditionally the rivers' flooding issues were controlled by dam operation and a widespread flood control levee system. Flooding in 1995 and 1996 effectively destroyed the entire levee system in the upper reaches of the Puyallup River, rendering over 20 miles of levee ineffective for flood protection. Pierce County and other local jurisdictions have been moving forward with non-structural solutions to address the current flooding issues, only replacing levees where critically necessary. In 1997 to 1999 Pierce County partnered with the Corps to set back two miles of levee, restoring 120 acres of floodplain to riverine influence. Activities such as removing people and structures from harms way and restoring floodplains and tributaries are being addressed in this study on a basin-wide basis. Pierce County, the Puyallup Tribe, and many local jurisdictions have formed a coalition to address Puyallup River issues, and have chosen to work with the Corps to develop comprehensive watershed planning and basin-wide water resource solutions.

Fiscal Year 2004 funds will be used to continue feasibility studies and begin the formulation of alternatives. The estimated cost of the feasibility phase is $5,000,000, which will be shared on a 50-50 percent basis by the Corps and the non-Federal sponsor. All or part of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,112,000
Reconnaissance Phase (Federal)	112,000
Feasibility Phase (Federal)	2,500,000
Feasibility Phase (Non-Federal)	2,500,000

The reconnaissance phase is scheduled for completion in Sep 2003. The estimated feasibility phase completion date is TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
e. Watershed/Comprehensive Studies: An amount of $ 553,000 is requested to continue three studies.					
MONTANA					
Yellowstone River Corridor, Omaha District	2,320,000	220,000	TBD	209,000	TBD

An interagency study of the Yellowstone River corridor from Gardiner, Montana, to the confluence of the Missouri River to determine the hydrologic, biological and socioeconomic cumulative impacts as authorized by Section 431 of Water Resources Development Act of 1999. The Yellowstone River corridor, defined linearly as approximately 600 river miles in Montana and North Dakota and laterally from the channel as the upper riverine terrace formed from historic fluvial processes, has been subject to natural and human interactive factors affecting ecosystem health and recovery. Flooding in 1996 and 1997 caused damage to private landowners and public facilities with a subsequent increase in regulatory actions under Section 10 of the Rivers and Harbors Act/Section 404 of the Clean Water Act as well as Corps of Engineers emergency technical assistance. Given the natural and historic heritage of this river corridor, issues regarding the long term effects of bank stabilization and the potential for significant adverse cumulative impacts have been raised by public and private sector and environmental interests. In contrast, issues regarding an individuals right to protect property and more local control of floodplain/riverine activities have been evident from the landowner and local government interest groups. The primary goal of this study is to develop a set of publicly supported river corridor management recommendations that address effects of channel modifications on the human community and riparian ecosystem along the Yellowstone River corridor. The corridor study will be used to develop 1) the formulation of management and protection objectives; 2) evaluate trade-offs among objectives; 3) use environmental impacts as a factor in determining the acceptability of management objectives as contrasted with potential long-term riparian deterioration. The study will also determine the advisability of Corps participation in environmental restoration and flood damage reduction projects along the Yellowstone River.

The Upper Yellowstone River Study was directed by the FY 99 Energy and Water Development Appropriation Regulatory Program Senate Report 105-206. This special area management plan study from Gardiner to Springdale, MT, a reach of about 85 miles, is assessing the long-term effects of streambank stabilization. The proposed study would incorporate and expand the existing Upper Yellowstone River technical studies to the remainder of the riparian corridor. The Upper Yellowstone Study should be finalized prior to completion of the entire corridor study. The ongoing Upper Yellowstone study design involves a comparison of altered vs. unaltered reaches in terms of hydraulics/channel geomorphology, cottonwood recruitment, fish and wildlife utilization as well as socioeconomic analyses.

For the remaining 515 miles of the corridor, a less detailed evaluation would be conducted. For detailed analysis it will be subdivided into similar hydrogeomorphic reaches and comparative analyses of altered vs. unaltered reaches conducted. These analyses would form the basis for formulation of management and protection objectives in concert with the local public/ private sector interest groups. Sites within each sub-corridor will be identified for further analysis. The potential cost share sponsor is the Custer County Conservation District, the fiscal agent for the Yellowstone River District Conservation Council.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

2. SURVEY STUDIES: (Continued)
   e. Watershed/Comprehensive Studies: (Continued).

MONTANA (Continued)

Yellowstone River Corridor, (Continued)

Fiscal year 2003 funds are being used to complete the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, Fiscal Year 2003 funds will also be used to continue into the feasibility phase of the study. Fiscal Year 2004 funds will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $2,800,000, which is to be shared on a 75-25 percent basis by Federal and non-Federal interests. All or part of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,020,000
Reconnaissance Phase (Federal)	220,000
Feasibility Phase (Federal)	2,100,000
Feasibility Phase (Non-Federal)	700,000

In accordance with Section 431 of P. L. 106-53, this study is to be performed in consultation with the United States Fish and Wildlife Service (USFWS), United States Geological Survey (USGS), Natural Resources Conservation Service (NRCS), and with full participation of the State of Montana, tribal and local entities; and provide for public participation. Funding for the consultation efforts of the USFWS, USGS, and NRCS during the study should be obtained by each respective agency.

The reconnaissance phase is scheduled for completion in July 2003. The feasibility schedule for completion is TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
e. Watershed/Comprehensive Studies: (Continued).					
OREGON					
Amazon Creek, OR (Eugene-Springfield Metro Area) Portland District	1,675,000	47,000	TBD	250,000	TBD

The Cities of Eugene and Springfield are located in Lane County, Oregon at the upper end of the Willamette Valley at the junction of several rivers; the McKenzie, the Middle Fork of the Willamette, the Cost Fork of the Willamette, the Willamette River Main Stem, and Amazon Creek, a major tributary to the Long Tom River. Lane County covers an area of approximately 4,620 square miles. From the Pacific Ocean to the Cascade Mountains, Lane County is larger than Delaware and Rhode Island combined. Although 90 percent of Lane County is forestland, Eugene and Springfield comprise the second largest urban area in Oregon after Portland. Lane County has a population of approximately 315,700 residents with about 130,000 residing in Eugene and 51,700 located in Springfield. The Cities of Eugene and Springfield are dedicated to making their communities a more livable place. Protecting and restoring the water resources for multiple use and values is critical to maintaining and improving the economic and environmental health of the county. There are many water resource issues that can be addressed with this study including, but not limited to, flood damage reduction, environmental restoration, water quality, endangered species conservation, watershed protection, and waterway improvements.

The reconnaissance study (Section 905(b) analysis) was sent to HQ on Oct. 22, 2002. Since then, HQ made six comments on the report (Dec. 3). The district will provide comprehensive written responses by the end of Jan 2003. The Project Management Plan (PMP) for the feasibility phase is underway. The district is working with three potential sponsors, the cities of Eugene and Springfield, and Lane County, to develop the PMP, on which the Feasibility Cost Sharing Agreement (FCSA) will be based. The feasibility phase scope of work would be prepared in concert and support of the Oregon Plan for Salmon and Watershed and in conjunction with the non-Federal sponsors. The preliminary estimated cost of the feasibility phase is $3,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. All three potential sponsors are interested in all or part of their non-Federal share be in-kind services. The feasibility completion is TBD. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$ 3,175,000
Reconnaissance Phase (Federal)	175,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Sponsor)	1,500,000

The study was authorized by the Resolution of the House Committee on Public Works for the Willamette Basin Review Study dated 8 September 1988.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
e. Watershed/Comprehensive Studies: (Continued).					
OREGON (Continued)					
Willamette River Basin Review, Portland District	2,284,000	1,856,000	TBD	94,000	TBD

Willamette River Basin, containing an area of approximately 12,000 square miles, is located in northwestern Oregon. As the most populated area in Oregon, the basin is highly developed. Many miles of levees and channel improvements have been constructed for flood protection. During the last 40 years, 13 Corps reservoirs have been constructed to control floods, generate power, and provide water for navigation and irrigation. Present problems include flood damages, which are still considerable; fish and wildlife conservation; municipal and industrial water supply; and development of additional recreation opportunities. In addition, projected irrigation development in the basin has not materialized at the rate previously envisioned, leaving considerable un-contracted water available for other vendible purposes.

Local interests seek a re-examination of Corps reservoirs with a view toward authorizing additional project purposes and modifying reservoir operation. The State of Oregon has expressed strong support for the study because of its desire to implement a new Comprehensive Management Plan for the basin. A Feasibility Cost Sharing Agreement (FCSA) was executed on 31 May 1996 with the State of Oregon. The feasibility study will determine if modifying the operation and storage allocation of the existing Corps system of 13 reservoir projects would better serve current and anticipated future water resource needs.

The current high priority issue in the Willamette Basin is the March 1999 listing by National Marine Fisheries Service (NMFS) of three species of anadromous fish as either threatened or as a candidate for listing under the Endangered Species Act (ESA). These fish include the Upper Willamette River Chinook Salmon, the Upper Willamette River Steelhead, and the Coastal Cutthroat (as a potential candidate). NMFS specifically states in the Federal Register (Vol. 64. No. 57, March 25, 1999) that habitat blockage and habitat degradation have probably adversely affected fish within the basin.

In accordance with Section 7 of ESA, the Corps completed a Biological Assessment (BA) in April 2000 addressing the impacts of operation of the Willamette reservoirs on the listed species. The final BA concluded that the reservoirs adversely affect listed species. In response, NMFS and USFWS are preparing Biological Opinions (BOs) recommending "reasonable and prudent actions" the Corps should undertake to prevent further take of listed species and support their recovery. A draft BO concluded that the continued operation of the Willamette reservoirs jeopardize the survival of Federally listed species in the basin. NMFS and USFWS are expected to recommend significant actions to modify structures and operation of the existing Corps Willamette projects. Expected recommendations include, but are not limited to, improvement of fish passage, temperature control facilities, upstream and downstream habitat restoration, and flow Willamette River Basin Review, OR augmentation. The final draft BOs are TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

2. SURVEY STUDIES: (Continued)
   e. Watershed/Comprehensive Studies: (Continued).

OREGON (Continued)

Willamette River Basin Review, (Continued)

Because of the direct relationship between reservoir operations and fisheries, we believe it will be necessary to rescope the study to address NMFS' recommended actions at the time the BOs are completed. Development of final study alternatives for operation of the Willamette Reservoirs has been delayed. The study team and non-federal sponsors do not believe it is possible to establish these alternatives until after operating requirements for listed fish species have been clearly established. Study objectives previously described under the Project Study Plan and agreed to with the non-federal sponsor will be completed.

The reconnaissance phase of the study was completed in May 1996. The current feasibility study completion is TBD although that date will be revised when the study is rescoped. Fiscal Year 2003 and 2004 funds will be used to revise the study scope and reinitiate the feasibility study. The current estimated cost of the feasibility phase is $2,900,000, which is shared on a 50-50 percent basis by the Corps and the non-Federal sponsor. Of the non-Federal share, $361,000 will be in-kind services.

A current summary of study cost sharing is as follows:

Total Estimated Study Cost:	$ 3,734,000
Reconnaissance Phase:	834,000
Feasibility Phase:	1,450,000
Feasibility Phase (Non-Federal):	1,450,000

The study was authorized by a resolution of the House Committee on Public Works and Transportation dated 8 September 1988.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
f. Special Studies: An amount of $981,000 is requested to continue four studies.					
COLORADO					
Chatfield, Cherry Creek, and Bear Creek Reservoirs, Omaha District	1,543,000	873,000	TBD	260,000	TBD

The study area includes the three Corps of Engineers' projects (Tri-Lakes) located in the Denver metropolitan area. The study area also includes the South Platte and Platte Rivers downstream from the Corps' projects, because of the potential impacts that may be identified during the study. The study will examine the potential for reassigning storage in the reservoirs to joint uses, including flood control and conservation, fishery habitat protection and enhancement, municipal and industrial water supply, and recreation. The study will also examine the potential to use reallocated storage to assure a water source for the numerous environmental restoration projects being undertaken or envisioned, due to the interest in environmental restoration in the South Platte River floodplain downstream from the projects. The majority of the study effort will focus on the Chatfield project. The impacts of reassigning storage will be identified and included in the reallocation costs that would be assigned to the project sponsor.

In the reallocation study, a range of storage values and operational criteria will be selected and examined to determine the impacts in and downstream from the reservoirs. The major potential impacts that will be examined include downstream impacts on flood protection and fish and wildlife (particularly on Threatened and Endangered species in Nebraska), recreation and water quality on the projects. The sponsor is the Colorado Water Conservation Board. The Feasibility Cost Sharing Agreement was signed on 2 September 1999.

Fiscal Year 2003 will be used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2004 will also be used to continue the feasibility phase of study. The preliminary estimated cost of the feasibility phase is $2,886,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one-half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,986,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,443,000
Feasibility Phase (Non-Federal)	1,443,000

The reconnaissance phase was completed in October 1999. The feasibility study schedule for completion is TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
f. Special Studies: (Continued)					
KANSAS					
Topeka Kansas City District	1,287,000	1,003,000	TBD	125,000	TBD

Construction of a flood protection project at Topeka was completed in Fiscal Year 1974 at a total Federal cost of $21,175,000. The project has prevented an estimated $229,280,000 in flood damages through December 1994, with an estimated $57,792,000 prevented in July and August 1993.

Hydraulic analysis by the State of Kansas Department of Transportation and the Corps of Engineers indicates that significant portions of the existing levee system at Topeka are inadequate to protect against the design frequency flood event. Concerns include changes in the Kansas River and the fact that a number of upstream flood control lakes, assumed to be in place when design discharges were being determined, were never constructed. The direct impact to Topeka is that uncontrolled flood discharges and stages are greater than originally envisioned, and the level of protection at Topeka is correspondingly lessened. The growing industrial/commercial and residential development protected by the levee system is estimated to have a total value of approximately one billion dollars. Failure of the levee system could result in millions of dollars in damages and the loss of life. The reconnaissance report, completed in September 1997 and certified in May 1998, recommended that a feasibility study be conducted based on the potential federal interest in project modifications. The reconnaissance phase was completed with execution of the FCSA in July 1998. The feasibility study was initiated in August 1998.

The funds requested for FY 2003 and 2004 will be used to continue the feasibility study. The estimated cost of the feasibility phase is $1,900,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. In-kind services estimated by the sponsor total $50,000. A summary of cost sharing is as follows:

Total Estimated Study Cost	$ 2,237,000
Reconnaissance Phase (Federal)	337,000
Feasibility Phase (Federal)	950,000
Feasibility Phase (Non-Federal)	950,000

The feasibility phase completion date is TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
f. Special Studies: (Continued)					
MISSOURI					
Missouri River Levee System, Units L455 and R460-471 Kansas City District	1,570,000	1,239,000	TBD	150,000	TBD

Missouri River Levee System, Units L455 and R460-471 were authorized as part of a comprehensive plan in the Flood Control Act of 1944. Construction of Unit L455 was completed in 1967 at a cost of $4.7 million, and construction of Unit R460-471 was completed in 1968 at a cost of $3.9 million. The two levee units are located on opposite banks of the Missouri River in and near St. Joseph, Missouri. These two levee units were designed and constructed to provide flood protection for a Missouri River flow of 325,000 cubic feet per second with 2 feet of freeboard. Flood flows crested on 26 July 1993 at an estimated 335,000 cubic feet per second. The main stem flood control lakes constructed by the Corps upstream of the area lowered the river stage approximately 2.7 feet. Unit L455 protected 7,500 acres of industrial, residential, and farmland preventing approximately $176 million in damages; but flood waters were inches from overtopping the levee. Overtopping would have caused catastrophic damages to an industrial area with estimated assets of $1 billion and an annual payroll in excess of $50 million. Unit R460-471 was constructed to protect Elwood and Wathena, Kansas, Rosecrans Memorial Airport and Air National Guard Base in Missouri, and 10,800 acres of farmland; but this unit failed due to overtopping during the 1993 flood causing over $97.5 million in damages.

The reconnaissance study found Federal interest in a number of measures to increase flood protection. Structural measures were feasible for L455 and for R460-471. Potential measures include raising existing levees and improvement in seepage control. The study of Unit L455 was requested by the South St. Joseph Drainage and Levee District and the St. Joseph Area Chamber of Commerce in letters dated 14 and 21 April 1994, respectively. The levee district's letter indicated an understanding of the cost sharing requirements. Letters requesting a study of Unit R460-471 were received from the city of Elwood, Kansas, dated 21 April 1994; the city of Wathena, Kansas, dated 18 April 1994; and the Elwood-Gladden Drainage District dated 31 May 1994. The drainage district's letter indicated an understanding of cost sharing requirements.

The funds requested for Fiscal Year 2003 and 2004 will be used to continue the feasibility study. The estimated cost of the feasibility phase is $1,400,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one-half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$ 2,270,000
Reconnaissance Phase (Federal)	870,000
Feasibility Phase (Federal)	700,000
Feasibility Phase (Non-Federal)	700,000

The feasibility phase completion date is TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEY STUDIES: (Continued)					
f. Special Studies: (Continued)					
WASHINGTON					
Lake Washington Ship Canal, Water Conservation/Ecosystem Restoration Seattle District	4,986,000	2,413,000	TBD	446,000	TBD

The Lake Washington Basin is located in and around Seattle, Washington and includes Lake Washington, Lake Sammamish, the Cedar River, and tributaries. The basin is a critical source of salmon production in the Northwest. Lake Washington has the largest sockeye salmon run in the continental United States. In March 1999 Puget Sound stocks of Chinook salmon were listed as a threatened species under the Endangered Species Act. The purpose of this study is to evaluate ways to improve salmon survival in the basin. The Lake Washington Ship Canal and Hiram A. Chittenden Locks, Seattle, WA, is an 8-mile canal with a double lock and fixed dam with gated spillways between Puget Sound and Lake Washington. It is a key point through which all Lake Washington salmon, both adult and juvenile, must migrate. The reconnaissance study was initiated in 1997 in cooperation with King County and Seattle to consider water conservation at the locks to improve salmon passage, along with other environmental restoration projects, primarily for salmon. These include modifications to a major hatchery, and the enhancement of historical spawning and rearing areas throughout the basin. Both King County and City of Seattle are actively participating as sponsors for the feasibility studies.

Fiscal Year 2004 funds will be used to continue the feasibility study and complete an interim report recommending a number of habitat restoration sites for authorization. The estimated cost of the feasibility phase is $9,034,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one-half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$9,503,000
Reconnaissance Phase (Federal)	469,000
Feasibility Phase (Federal)	4,517,000
Feasibility Phase (Non-Federal)	4,517,000

The Reconnaissance Phase was completed in May 1999. The Feasibility Phase schedule for completion is TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

3. PRECONSTRUCTION ENGINEERING AND DESIGN (PED) – NEW: None
4. PRECONSTRUCTION ENGINEERING AND DESIGN (PED) – CONTINUING:
   a Navigation Studies: None.
   b. Flood Damage Prevention. The amount of $1,069,000 is requested to continue PED for three studies.

KANSAS

Turkey Creek Basin, Kansas and Missouri Kansas City District	2,025,000	1,684,000	TBD	205,000	TBD

The Turkey Creek basin is a 23-square-mile area within Kansas City, Kansas and suburbs in Johnson and Wyandotte Counties. The basin is nearly 100 percent urbanized, and a significant amount of development exists in the flood plain. A dual flood threat exists in the study area that consists of Turkey Creek overbank flows and localized hillside runoff. Either flood source can cause considerable damage. Six damaging floods have occurred since 1977. The flood of record occurred in July 1993 causing one fatality and damages estimated at $20 million.

The recommended project is estimated to cost $42.9 million, with an estimated Federal cost of $25.6 million and an estimated non-Federal cost of $17.3 million, including construction of channel modification and tributary floodwater diversion. The average annual benefits amount to $5.5 million, all for flood control. The benefit-cost ratio is 1.5 to 1 based upon the latest economic analysis completed in 1998. The cities of Kansas City, Missouri, and Kansas City, Kansas, will become joint sponsors. Latest evidence of sponsor support for design and construction is letters of support dated November 1998 from Kansas City, Missouri, and Kansas City, Kansas. The feasibility study was completed with publishing of the Division Engineer's Notice in December 1998. The Design Agreement was executed in Mar 1999. Preconstruction Engineering and Design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the Preconstruction Engineering and Design period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction	
Engineering and Design Costs	$2,700,000
Initial Federal Share	2,025,000
Initial Non-Federal Share	675,000

Total Estimated Preconstruction	
Engineering and Design Costs	$2,700,000
Ultimate Federal Share	1,755,000
Ultimate Non-Federal Share	945,000

Fiscal Year 2003 funds are being utilized to continue work on the Design Document Report and for preparation of a post authorization change report. Division Engineer Notice is scheduled to be issued February 2003. The funds being requested for FY 2004 will be used to continue PED.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
4. PRECONSTRUCTION ENGINEERING AND DESIGN (PED) – CONTINUING: (Continued)					
b. Flood Damage Prevention. (Continued)					
NEBRASKA					
Sand Creek Watershed, Wahoo, Omaha District	1,125,000	430,000	TBD	546,000	TBD

The Sand Creek Watershed project area is located in southeastern Nebraska in Saunders County and has a drainage area of approximately 87 square miles at the proposed location of the Highway 77 bypass north of Wahoo. The feasibility report and Supplemental LRR identifies a watershed based project which includes a large impoundment with main dam embankment, and seven upstream detention storage cells. The project provides ecosystem restoration benefits through reestablishing wetlands, reducing sedimentation, and improving water quality for benefit of fish and wildlife. There are incidental flood control benefits, and some recreation. This location is on Wahoo Creek, immediately downstream of the confluence of Sand Creek and Duck Creek. The integrated Feasibility Study/Environmental Impact Study assessed the environmental benefits of Lake Wanahoo. This assessment included the proposed Highway 77 bypass to be constructed on top of the main embankment of Lake Wanahoo. The studies also addressed several other possible measures and/or structures to provide watershed restoration in the form of sediment control and wetland development. The project was conditionally authorized for construction in the Water Resources Development Act of 2000. The design agreement was executed in June 2001. The recommended project is estimated to cost $29.8 million with an estimated Federal cost of $16.57 million and an estimated non-Federal cost of $13.23 million. A Limited Reevaluation Report addressing conditional issues was submitted by ASA-CW to OMB on 2 Jan 03. The project will restore almost 800 acres of wetlands in the basin that has been highly developed for agriculture, including several acres of Todd Valley wetlands, which were previously plentiful but are now nearly non-existent. The project will eliminate the need for a highway bridge structure by constructing the highway road surface on top of the main dam embankment. The Lower Platte North Natural Resources District is the cost sharing partner for the PED and construction effort.

PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$1,500,000	Total Estimated Preconstruction Engineering and Design Costs	$1,500,000
Initial Federal Share	1,125,000	Ultimate Federal Share	834,000
Initial Non-Federal Share	375,000	Ultimate Non-Federal Share	666,000

Fiscal Year 2003 and 2004 funds will be used to continue the PED phase. The PED schedule for completion is TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
4. PRECONSTRUCTION ENGINEERING AND DESIGN (PED) – CONTINUING: (Continued)					
b. Flood Damage Prevention. (Continued)					
NEBRASKA (Continued)					
Western Sarpy and Clear Creek, Omaha District	1,161,000	692,000	TBD	318,000	TBD

The Western Sarpy/Clear Creek project area is located along and on opposite banks of the Lower Platte River and a portion of the Elkhorn River in eastern Nebraska. The area has a significant, long-term flooding problem. The feasibility study identified several variations of alternative levee alignments and components, as well as a non-structural plan. Environmental restoration was also considered. The design agreement was executed in June 2001. The recommended project is estimated to cost $16.9 million with an estimated Federal cost of $9.9 million and an estimated non-Federal cost of $7 million. The project was conditionally authorized for construction in the Water Resources Development Act of 2000. The Chief of Engineers report was completed on 29 Dec 00. A Limited Reevaluation Report (LRR) addressing additional the conditional approval issues was submitted to HQUSACE in September 2002. Comments by HQ to the LRR are being resolved by district. The project will consist of a 50-year levee system with some nonstructural measures. The project alsoincorporates conservation measures to lessen the impact on endangered species.

PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$1,548,000	Total Estimated Preconstruction Engineering and Design Costs	$1,548,000
Initial Federal Share	1,161,000	Ultimate Federal Share	909,000
Initial Non-Federal Share	387,000	Ultimate Non-Federal Share	639,000

Fiscal Year 2003 and 2004 funds will be used to continue PED. The PED schedule for completion is TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
4. PRECONSTRUCTION ENGINEERING AND DESIGN (PED) – CONTINUING: (Continued)					
c. Shoreline Protection Studies: None.					
d. Ecosystem Restoration Studies: The amount of $ 186,000 is requested to continue PED for one project.					
COLORADO					
Zuni and Sun Valley Reaches, South Platte River, Denver County Omaha District	450,000	31,000	TBD	186,000	TBD

The South Platte River flows 10.5 miles through Denver. In this reach, 300,000 people live within 1-mile of the river's banks. The river has been modified, channelized, and used as a waste disposal site over the last 100 years as metropolitan Denver grew up along the banks of the South Platte River. During the 1970's, Denver's attitude about its river began to change and in recent years extensive restoration has been underway. The emphasis is currently on the Upper Central Platte Valley reach that extends for one mile from 8th Avenue to I-25, and is bounded by industrial and residential land uses. The area is immediately west of Denver's downtown.

The Denver County General Investigation Study has progressed at a remarkable and steady pace. The Reconnaissance (905(b)) study was initiated in December 2000 and was completed in April 2001. The Feasibility Cost Sharing Agreement (FCSA) was signed with the City and County of Denver in May 2001 and the Draft Feasibility Report was completed in December 2001. The Division Commanders Notice was issued in September 2002. A Preconstruction Engineering and Design (PED) agreement was signed in September 2002, the design is currently 40 percent complete, and the final design is scheduled for completion in July 2003. State and Agency review has been completed and the District is currently waiting for the Report of the Chief of Engineers to be issued.

The recommended project is estimated to cost $18 million with an estimated Federal cost of $11.7 million and an estimated non-Federal cost of $6.3 million. The project includes removal of an in-stream dam that is a source of cooling water for the Zuni power plant and includes replacement of water supply facilities. Removal of the dam is key to the river restoration project because it enables channel and stream bank restoration in the reach. This includes riverine, wetland, and terrestrial habitat development, development of a meandering low flow channel, recreational features, improved water quality and reduced flood stages. The river's banks are steep, impairing wildlife habitat development and making human access difficult. Much of the vegetation is non-native and in poor condition. Improving the corridor in this stretch for wildlife, flood damage reduction, and recreational purposes has been under consideration for many years.

Low-income housing and industrial areas are within the limits of the 100-year flood. Pressure to further develop in the flood plain continues. Though the primary purpose of the project is ecosystem restoration, reduction of flood damages through structural and non-structural means is also a goal. Strong flood plain regulation is in place to avoid the creation of any new flood hazards. Past studies have indicated that structural flood control is not economically feasible based solely on flood damage reduction benefits. Cost-effective non-structural and limited structural flood control are being considered as a component of the overall restoration plan. Recreation development is also anticipated.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

4. PRECONSTRUCTION ENGINEERING AND DESIGN (PED) – CONTINUING: (Continued)
   d. Ecosystem Restoration Studies: (Continued)

COLORADO (Continued)

Zuni and Sun Valley Reaches, (Continued)

In 1995, the mayor established the South Platte River Commission (SPRC) that is taking the lead in implementation of the South Platte River restoration. The SPRC represents federal, state, and city agencies, and private and non-profit organizations with environmental, wildlife, recreation, education, and business interests in the river. There is a strong local investment committed to the restoration of the river. To date, $47 million has been spent on South Platte River improvements by local government, non-profit, and private sources. Obviously, the extent of local commitment to restoration of the river is extremely high. An extensive local network supports the efforts. Local leadership from the City comes directly from Mayor Webb. Other strong local partners include Urban Drainage and Flood Control District, the Greenway Foundation, South Suburban Park and Recreation District, County of Denver, City of Englewood, City of Littleton, Town of Columbine Valley, Public Service of Colorado, Downtown Denver Partnership, Inc., Gates Family Foundation, Colorado's Ocean Journey, Audubon Society of Greater Denver, Sierra Club Rocky Mountain Chapter and others. The State of Colorado is involved and supportive. There is no opposition to this project. Federal agencies supporting the restoration planning and implementation are: Environmental Protection Agency (clean up of brownfields, water quality, etc.), Federal Emergency Management Agency (flood plain regulation, flood hazard mitigation), United States Fish and Wildlife Service (Wildlife restoration), Forest Service, and National Park Service. Twenty-one letters of support for Corps involvement in the South Platte River restoration have been provided by a wide range of involved local, State, Federal agencies, private companies, and public interest groups. The Chatfield Dam is located on the South Platte River at the upstream end of the Arapahoe study reach. Chatfield Dam, which includes 235,000 acre-feet of flood control storage, reduces flooding from 3,018 square miles of drainage area upstream from the dam. Bear and Cherry Creek dams also reduce flood flows on the South Platte River. Bear Creek and Cherry Creek enter the South Platte River in the Denver County study reach.

The PED Agreement was signed on 30 September 2002 with the cost share sponsor, the City and County of Denver. Preconstruction Engineering and Design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 25% non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$600,000	Total Estimated Preconstruction Engineering and Design Costs	$600,000
Initial Federal Share	450,000	Ultimate Federal Share	390,000
Initial Non-Federal Share	150,000	Ultimate Non-Federal Share	210,000

Fiscal Year 2003 funds are being utilized to continue the PED phase. The PED schedule for completion is TBD.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

4. PRECONSTRUCTION ENGINEERING AND DESIGN (PED) – CONTINUING: (Continued)
   e. Watershed/Comprehensive Studies: None.
   f. Special Studies: None.

APPROPRIATION TITLE: Construction, General - Flood Control, Local Protection

PROJECT: Big Sioux River and Skunk Creek, Sioux Falls, South Dakota (Continuing)

LOCATION: Sioux Falls is located on a large bend of the Big Sioux River and at the confluence with Skunk Creek in the south half of Minnehaha County in southeastern South Dakota.

DESCRIPTION: The project builds upon an existing project. It consists of raising an existing levee from the diversion dam to the upstream tie-off, raising the diversion channel levee, modifying the chute and stilling basin, raising the diversion dam, raising the levees on Skunk Creek, raising Big Sioux levees downstream of Skunk Creek, and providing for bridge improvements.

AUTHORIZATION: Section 101 of the Water Resources Development Act of 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 1.9 to 1 at 7.375 percent

TOTAL BENEFIT-COST RATIO: 1.10 to 1 at 7.375 percent

INITIAL BENEFIT-COST RATIO: 1.12 to 1 at 7.375 percent (FY 2000)

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in August 1997 at 1998 price levels.

SUMMARIZED FINANCIAL DATA:

			ACCUM PCT OF EST FED COST	STATUS (1 JAN 2003)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 32,198,000				
Estimated Non-Federal Cost		10,733,000				
Cash Contribution	$ 2,517,000			Entire Project	30	1/
Other Costs	$ 8,216,000					
Total Estimated Project Cost		$ 42,931,000				
Allocations to 30 September 2002		$ 9,495,000				
Conference Allowance for FY 2003		1/				
Allocation for FY 2003		1/				
Allocations through FY 2003		1/	1/			
Allocation Requested for FY 2004		6,000,000	1/			
Programmed Balance to Complete after FY 2004		1/				
Unprogrammed Balance to Complete after FY 2004		0				

1/ To Be Determined

PHYSICAL DATA:

Relocations:
2 Utilities, 3 Bridges, and
4 Structures

Levee:
Length: 11.5 miles
Level of Protection: 100-year flood

Bridges:
Raise: 3 roadway and 1 railroad

Spillway/Stilling Basin:
Spillway: Raise Walls
Stilling Basin: Raise Walls

JUSTIFICATION: The project will provide urgently needed flood protection to the metropolitan areas of Sioux Falls, South Dakota. The flood problem is severe under the present stage of urban development. There have been eight floods in the city in the past forty-five years with the largest in 1969, a 100-year event. This 100-year flood today would cause $111 million in damage based on current economic analysis. This project would provide protection from a 100-year event. The average annual damages to the 2,707 structures in the 100-year flood plain are $2.7 million. The average annual damages without the project are $5.7 million. The average annual damages with the project are $2.3 million. With this project in place the annual benefits derived will be $3.8 million, all from flood damage protection.

Annual Benefits	Amount
Flood Damage Prevention (Urban):	
Structure and Contents	$ 2,628,800
External Damages	289,100
Emergency Costs	203,900
Flood Insurance Costs	185,200
Flood Plain Fill Costs	514,800
Total Benefits	$ 3,821,800

FISCAL YEAR 2004: The requested amount of $6,000,000 will be applied as follows:

Item	Amount
Continue Levee Construction	5,145,000
Construction Management	855,000
Total	$ 6,000,000

NON-FEDERAL TOTAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, amended, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments during Construction	Annual Operation, Maintenance, Repair Rehabilitation and Replacement Costs
Provide all lands, easements, right-of-ways, and dredged material disposal areas.	$ 3,486,000	
Relocate utilities, buildings, roads, bridges (except railroad bridges), and other facilities required for construction of the project.	$ 4,730,000	
Pay 5 percent of the cost allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	$ 2,147,000	$ 32,450
Pay 1 percent of the costs allocated to flood control to bring the total non-Federal share of flood control to 25 percent.	$ 370,000	
Total Non-Federal Costs	$10,733,000	$ 32,450

The non-Federal sponsor will make required cash contribution payments concurrently with project construction.

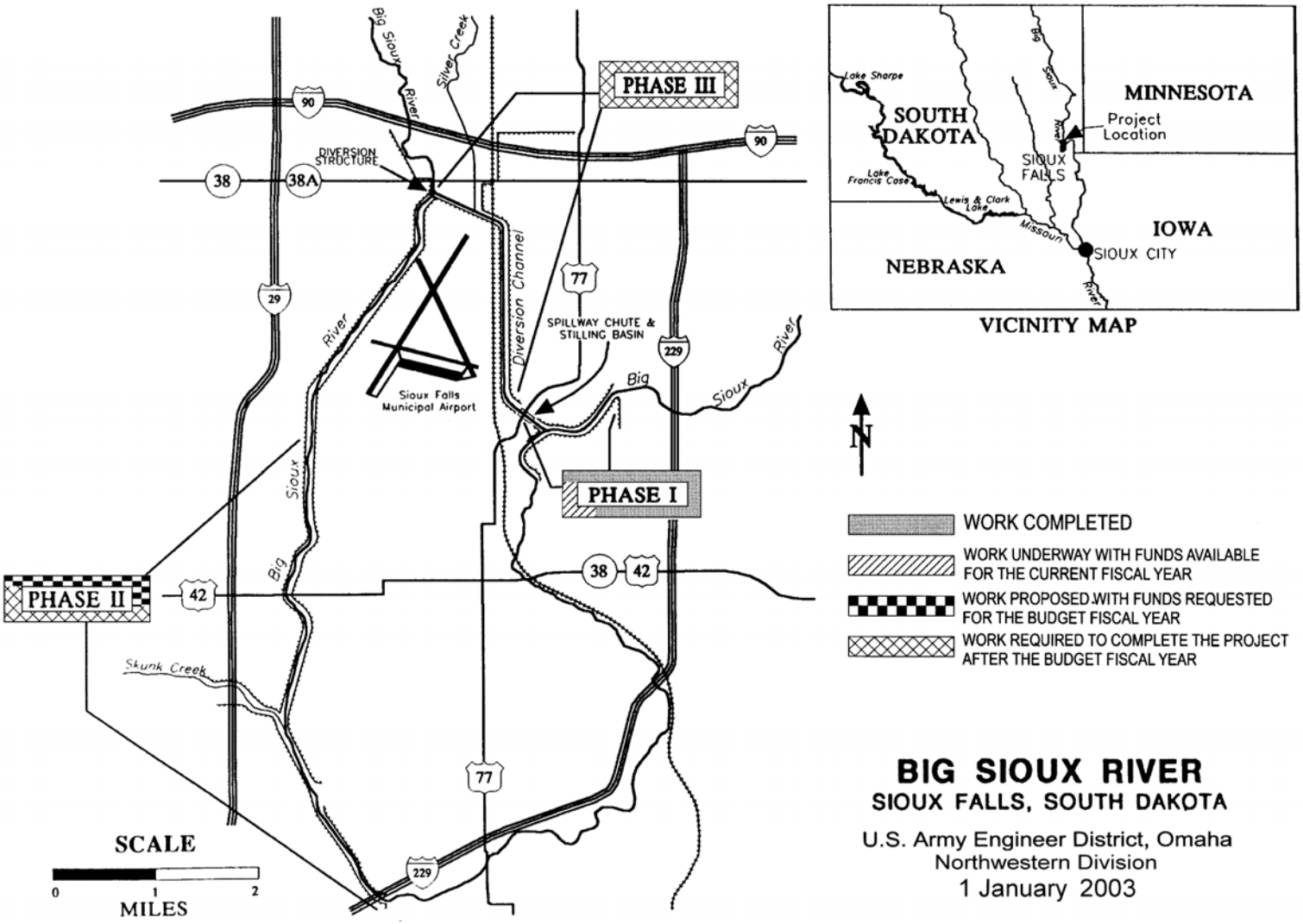
STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement (PCA) with the city of Sioux Falls to sponsor the Big Sioux River project was executed on 14 August 2000. The current non-Federal cost estimate of $10,733,000, which includes a cash contribution of $2,517,000, is an increase from the non-Federal cost estimate of $10,150,000 noted in the PCA, which included a cash contribution of $2,402,000.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $32,198,000 is an increase of $992,000 from the latest estimate ($31,206,000) presented to Congress (FY 2003). This change includes the following items:

Item		Amount
Price Escalation on Construction Features and Changes in Project Inflation Rates	$	+ 831,300
Other Estimating Adjustments		+160,700
Total	$	+992,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental impact statement was not required for this project. An Environmental Assessment and a Finding Of No Significant Impact were completed with the feasibility report.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1994 and to initiate construction in Fiscal Year 2000. The mitigation portion of this project will consist of creating 0.8 acres of wetlands to replace the wetlands lost by raising of existing levees.


PHASE III
PHASE I
PHASE II
DIVERSION STRUCTURE
SPILLWAY CHUTE & STILLING BASIN
Sioux Falls Municipal Airport
Diversion Channel
Big Sioux River
Silver Creek
Skunk Creek
90
38
38A
29
77
229
42
SCALE
0 1 2
MILES
VICINITY MAP
MINNESOTA
SOUTH DAKOTA
NEBRASKA
IOWA
Project Location
SIOUX FALLS
SIOUX CITY
Lake Sharpe
Lake Francis Case
Lewis & Clark Lake
Missouri River
N
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
BIG SIOUX RIVER
SIOUX FALLS, SOUTH DAKOTA
U.S. Army Engineer District, Omaha
Northwestern Division
1 January 2003

APPROPRIATION TITLE: Construction, General – Local Protection Projects (Flood Control)

PROJECT: Blue River Basin, Kansas City, Missouri - Continuing

LOCATION: Located along the left bank of the Blue River from U.S. 71 Highway upstream for a distance of about 1-¼ miles in Jackson County Missouri to the Bannister Federal Complex levee.

DESCRIPTION: The project plan consists of a levee and gate system 5,600 feet long connecting the Bannister Road Federal Complex levee at the upstream end to the embankment of Bruce R. Watkins Drive on the downstream.

AUTHORIZATION: Water Resources Development Act of 1996 (PL 104-303), October 12, 1996.

REMAINING BENEFIT – REMAINING COST RATIO: 1.9 to 1 at 6 3/8 percent

TOTAL BENEFIT-COST RATIO – 1.7 to 1 at 6 3/8 percent

INITIAL BENEFIT-COST RATIO -- 1.7 to 1 at 6 3/8 percent (FY 2001)

BASIS OF BENEFIT-COST RATIO: Limited Reevaluation Report (LRR) approved June 2000.

SUMMARIZED FINANCIAL DATA:

			STATUS (1 Jan 03)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$12,332,000			
Estimated Non-Federal Cost		6,786,000			
Cash Contribution	1,000,000		Entire Project	12	1/
Other Costs	5,786,000				
Total Estimated Project Cost		19,118,000			

		ACCUM PCT. OF EST. FED COST	PHYSICAL DATA
Allocations to 30 September 2002	2,304,000		
Conference Allowance for FY 2003	1/		
Allocation for FY 2003	1/		
Allocations through FY 2003	1/	1/	Levee and floodwall 5600 feet long
Allocation Requested for FY 2004	2,000,000	1/	
Programmed Balance to Complete after FY 2004	1/		
Unprogrammed Balance to Complete after FY 2004	0		

1/ To Be Determined

JUSTIFICATION: The Blue River drains a 272 square-mile area, much of which is a highly urbanized part of the Kansas City Metropolitan Region. About 56 percent of the basin lies in Johnson County, Kansas, and the remainder is in Cass and Jackson Counties, Missouri. Flooding has been a major problem in the basin for many years. Five serious floods and three less severe floods have occurred in the Dodson Industrial Area since 1928. The flood of record was in 1961 with a peak discharge of 41,000 cubic feet per second. A channel modification project is currently under construction on the downstream 12-mile reach near the Missouri River. However, a serious flood problem remains, particularly along the left bank of the Blue River from U.S. Highway 71 upstream for a distance of about 1-1/4 miles in Jackson County, Missouri, to the Bannister Federal Complex levee. The May 1990 flood caused approximately $1.6 million in damages to the 1-1/4 mile reach of this project area that is comprised of commercial properties and public structures valued at around $219 million. Estimated annual average benefits, all flood control, based on 1 October 1995 prices, are $1,923,000. Without flood protection, the Dodson Industrial Area will continue to be damaged by periodic flooding, and will be faced with economic decline. The problem will worsen with time if no corrective action is taken because frequently flooded buildings deteriorate and have shortened economic lives.

FISCAL YEAR 2004: The requested amount of $2,000,000 will be applied as follows:

Item	Amount
Continue Engineering and Design	$80,000
Continue Construction	$1,806,000
Construction Management	$114,000
Total	$2,000,000

NON-FEDERAL COSTS: Local interests are required to provide a cash contribution equal to 5 percent of total project costs assigned to flood control; furnish without cost to the United States all lands, easements, relocations, and rights-of-way required for construction and subsequent maintenance of the project; maintain and operate the project after completion, at no cost to the United States, in accordance with applicable Federal and State laws and regulations; keep and maintain books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to the project; participate in and comply with applicable Federal flood plain management and flood insurance programs; and adequately inform all affected interests, at least annually, of the extent of protection provided by the project. The investment is broken down as follows:

Requirements of Local Cooperation:	Payments During Construction Costs	Annual Operation, Maintenance and Replacement
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$3,688,000	$15,000
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities.	$2,098,000	$10,000

Requirements of Local Cooperation (continued):

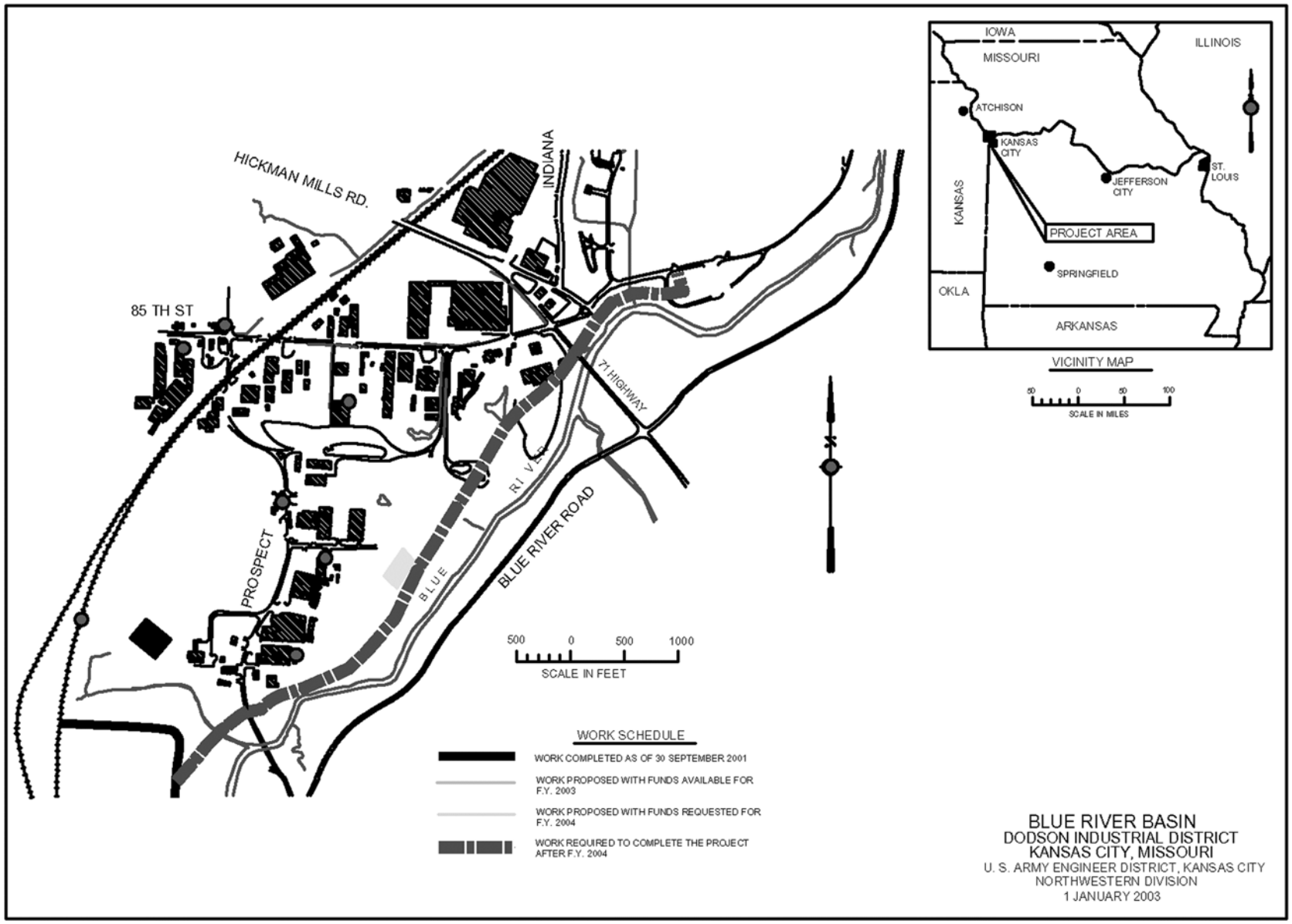
Pay 5 percent of the costs allocated to flood control to bring the Total non-federal share of flood control costs to 35 percent.	$1,000,000
Total Non-Federal Costs	$6,786,000

STATUS OF LOCAL COOPERATION: The City of Kansas City, Missouri expressed its intent to sponsor the project and a statement of financial capabilities in a letter dated 20 February 1996. Local sponsor participates in quarterly and real estate meetings and reviews each phase of the project. The PCA was signed in September 2001.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $12,332,000 is the same as last presented to Congress (FY 2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment, dated February 1996, concluded that no significant impacts would adversely affect the quality of the environment were identified for the plan for flood protection measures for the Dodson Industrial Area. The District Commander signed a Finding of No Significant Impact 15 March 1996.

OTHER INFORMATION: Preconstruction Engineering and Design (PED) was completed in September 2000. First year construction funds were appropriated in FY 2001. Scheduled construction award date is September 2003.


HICKMAN MILLS RD.
INDIANA
85 TH ST
71 HIGHWAY
BLUE RIVER ROAD
PROSPECT
BLUE
RIVER
500 0 500 1000
SCALE IN FEET
WORK SCHEDULE
WORK COMPLETED AS OF 30 SEPTEMBER 2001
WORK PROPOSED WITH FUNDS AVAILABLE FOR F.Y. 2003
WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2004
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2004
IOWA
ILLINOIS
MISSOURI
ATCHISON
KANSAS CITY
ST. LOUIS
JEFFERSON CITY
KANSAS
PROJECT AREA
SPRINGFIELD
OKLA
ARKANSAS
VICINITY MAP
50 0 50 100
SCALE IN MILES
BLUE RIVER BASIN
DODSON INDUSTRIAL DISTRICT
KANSAS CITY, MISSOURI
U. S. ARMY ENGINEER DISTRICT, KANSAS CITY
NORTHWESTERN DIVISION
1 JANUARY 2003

APPROPRIATION TITLE: Construction, General - Local Protection Projects (Flood Control)

PROJECT: Blue River Channel, Kansas City, Missouri (Continuing)

LOCATION: The project is located along the Blue River and tributaries in Kansas City, Jackson County, Missouri, and extends from near its mouth (located at Missouri river mile 358.0) to 63rd Street, channel mile 12.5.

DESCRIPTION: The project plan consists of a channel modification along 12.5 miles of the Blue River channel providing flood protection for a once in 30-year flood and reducing flooding for less frequent events.

AUTHORIZATION: 1970 Flood Control Act

REMAINING BENEFIT - REMAINING COST RATIO: 5.6 to 1 at 6 5/8 percent.

TOTAL BENEFIT-COST RATIO: 3.1 to 1 at 6 5/8 percent.

INITIAL BENEFIT-COST RATIO: 1.6 to 1 at 6 5/8 percent (FY 1979).

BASIS OF BENEFIT-COST RATIO: Benefits are from the Supplemental Report dated 24 October 1990 to the General Design Memorandum and approved on 14 December 1990 at October 1990 price levels.

SUMMARIZED FINANCIAL DATA:

			STATUS (1 Jan 03)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$220,000,000			
Estimated Non-Federal Other Costs		32,500,000	Entire Project	84	1/
Cash Contribution	$ 0				
Other Costs	32,500,000				
Total Estimated Project Cost		$252,500,000	ACCUM	PHYSICAL DATA	
Allocations to 30 September 2002		$180,989,000	PCT OF EST	Bridge Alterations at Federal Cost:	
Conference Allowance for FY 2003		1/	FED COST	Railroad Bridges - Modify - 15	$23,868,000
Allocation for FY 2003		1/			
Allocations through FY 2003		1/	1/	Bridge Alterations at Non-Federal Cost:	
Allocation Requested for FY 2004		6,000,000	1/	Highway Bridges - Modify - 4	$7,502,000
Programmed Balance to Complete after FY 2004		1/			
Unprogrammed Balance to Complete after FY 2004		0		Channel Improvement: Length	
				Main Stem, Blue River Channel	12.5 miles

1/ To Be Determined

JUSTIFICATION: The Blue River basin lies completely in the Kansas City Metropolitan Region, with a 2000 population of 1,776,000 persons. The basin drains an area of 272 square miles and is subject to cloudbursts, prolonged rainstorms, floods, and extended drought periods. The maximum flood of record in the basin occurred in September 1961 and caused an estimated $8 million in damages. An August 1982 flood caused an estimated $3.3 million in damages, and an October 1986 flood along the Brush Creek tributary of the river caused an estimated $209,000 in damages in the lower flood plain. A major flood occurred on the lower portion of the river in May 1990 and caused damages estimated at $100.8 million. The July 1993 flood was not severe in this basin, causing damages estimated at $60,000. The authorized project would have prevented all but minor damages caused by the 1961 event, and all damages caused by the later events. The channel project provides for about a 30-year level of protection to 3,400 acres in the lower basin, including the Blue River Valley Industrial District. Estimated annual average benefits, all flood control, based on 1 October 1990 prices, are $43.6 million, of which $41.2 million are existing benefits and $2.4 million are future benefits.

FISCAL YEAR 2004: The requested amount of $6,000,000 will be applied as follows:

Item	Amount
Continue relocation of railroads	$ 4,501,000
Continue construction of channel	707,000
Engineering and Design	562,000
Construction Management	230,000
Total	$6,000,000

NON-FEDERAL COSTS: Local interests are required to furnish without cost to the United States all lands, easements, and rights-of-way required for construction and subsequent maintenance of the project; hold and save the United States free from damages due to construction; perform without cost to the United States necessary highway, highway bridge, and utility alterations required in connection with this project; maintain and operate the project after completion in accordance with regulations prescribed by the Secretary of the Army; and adequately inform all affected persons, at least annually, that the project will not provide complete flood protection. The investment is broken down as follows:

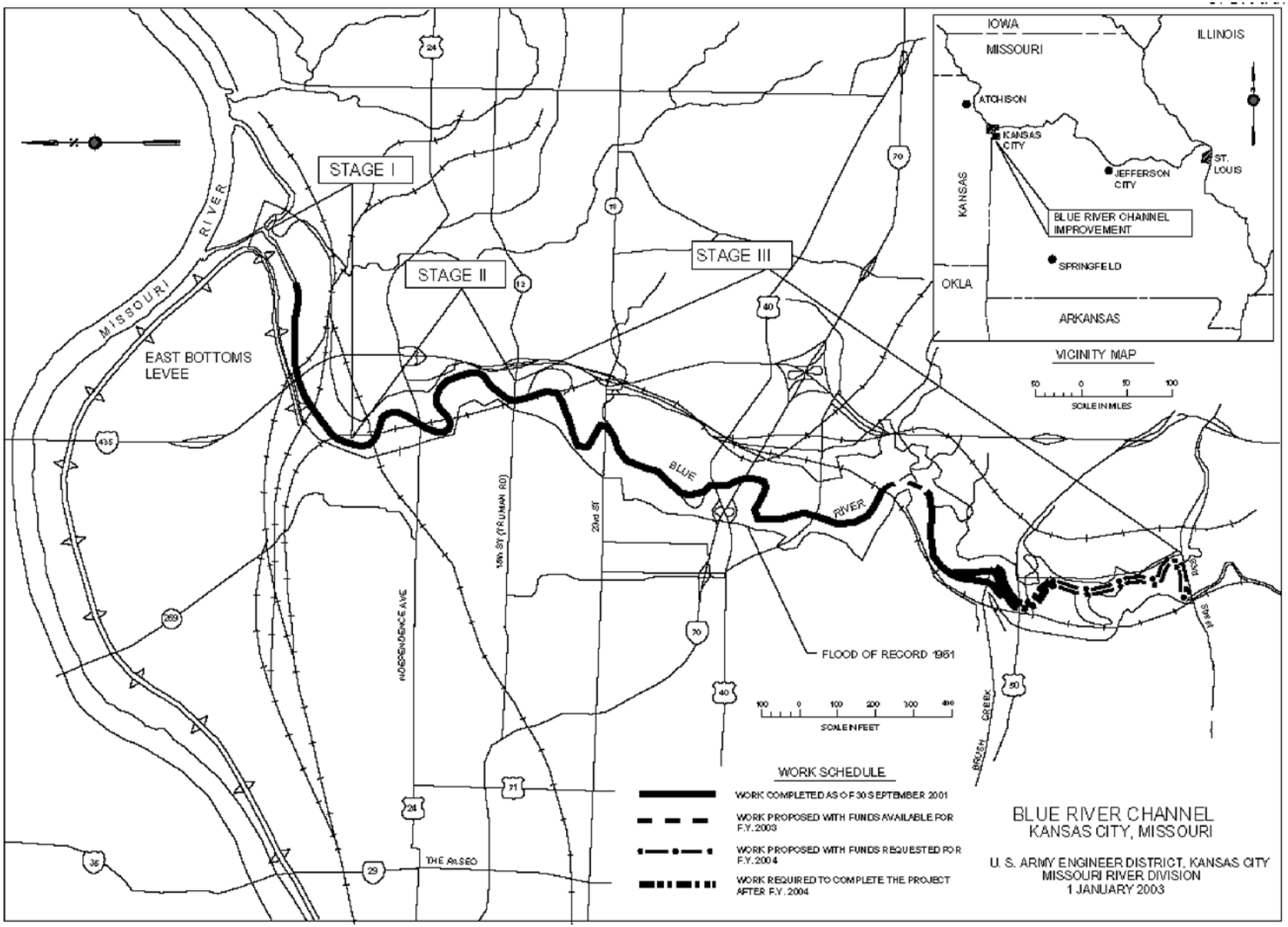
Requirements of Local Cooperation:	Payments During Construction Costs	Annual Operation, Maintenance and Replacement
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$18,886,000	$50,000
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities.	$13,614,000	$32,000
Total Non-Federal Costs	$32,500,000	$82,000

STATUS OF LOCAL COOPERATION: The Section 221 Agreement was signed by the Kansas City District Engineer on 8 September 1983. The City of Kansas City, Missouri, has provided all of the rights-of-way for Stages 1 and 2. The City has completed 99 percent of the Stage 3 right-of-way acquisitions with only two minor acquisitions remaining to be completed. The current non-Federal cost estimate of $32,500,000 is the same as noted in the Project Cooperation Agreement (PCA).

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $220,000 is the same as last presented to Congress (FY 2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Final statement on Blue River Basin plan made in connection with preauthorization studies was filed with the Council on Environmental Quality (CEQ) on 13 November 1970. A more complete draft statement on the Blue River Basin plan, including specific information on the impacts of the Blue River Channel, was filed with the CEQ on 11 April 1974. The final statement was forwarded to HQUSACE on 24 October 1974, and was filed with the CEQ on 8 September 1975.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1973, and funds to initiate construction were appropriated in FY 1979.


STAGE I
STAGE II
STAGE III
MISSOURI RIVER
EAST BOTTOMS LEVEE
BLUE RIVER
FLOOD OF RECORD 1951
IOWA
MISSOURI
ILLINOIS
KANSAS
OKLA
ARKANSAS
ATCHISON
KANSAS CITY
JEFFERSON CITY
ST. LOUIS
SPRINGFIELD
BLUE RIVER CHANNEL IMPROVEMENT
VICINITY MAP
SCALE IN MILES
SCALE IN FEET
WORK SCHEDULE
WORK COMPLETED AS OF 30 SEPTEMBER 2001
WORK PROPOSED WITH FUNDS AVAILABLE FOR F.Y. 2003
WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2004
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2004
BLUE RIVER CHANNEL
KANSAS CITY, MISSOURI
U. S. ARMY ENGINEER DISTRICT, KANSAS CITY
MISSOURI RIVER DIVISION
1 JANUARY 2003

APPROPRIATION TITLE: Construction, General (Flood Control)

PROJECT: Missouri National Recreational River, Nebraska and South Dakota (Continuing)

LOCATION: The Missouri River between Gavins Point Dam and Ponca State Park, Nebraska. This includes Cedar and Dixon Counties in Nebraska and Yankton, Clay, and Union Counties in South Dakota.

DESCRIPTION: Development of the river to protect and enhance the existing qualities which resulted in its classification as a National Recreational River under the Wild and Scenic Rivers System. The qualities include scenic, recreational, fish and wildlife, and cultural values of the river reach. Development includes recreation facilities, river access sites, threatened and endangered species habitat, erosion protection, and acquisition of scenic easements.

AUTHORIZATION: Section 707 of the National Parks and Recreation Act of 1978.

REMAINING BENEFIT-REMAINING COST RATIO: N/A Monetary benefits are not quantified.

TOTAL BENEFIT-COST RATIO: N/A

INITIAL BENEFIT-COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA:

Estimated Federal Cost		$21,000,000
Estimated Non-Federal Other Costs		3,994,000
Cash Contribution	$621,000	
Other Costs	3,373,000	
Total Estimated Project Cost		$24,994,000

STATUS (1 Jan 03)	PERCENT COMPLETE	PHYSICAL PHYSICAL COMPLETION SCHEDULE
Entire Project	40	1/
Myron Grove River Access	100	
Habitat for Threatened and Endangered Species (Ph I & II)	100	
Yankton-Riverside Park Access Recreation Site	100	
Ponca Erosion Protection	100	
Ponca Resource Education Center	85	

1/ To Be Determined

SUMMARIZED FINANCIAL DATA (continued):

Allocations to 30 September 2002	$7,875,000	PCT OF EST
Conference Allowance for FY 2003	1/	FED COST
Allocation for FY 2003	1/	
Allocations through FY 2003	1/	1/
Allocation Requested for FY 2004	1,000,000	1/
Programmed Balance to Complete after FY 2004	1/	
Unprogrammed Balance to Complete after FY 2004	0	

PHYSICAL DATA

River Length: 59 continuous miles of uncontrolled river (RM 811 to RM 752) below Gavins Point Dam downstream to Ponca State Park

Area: Approximately 19,600 acres within the designated corridor

1/ To Be Determined

JUSTIFICATION: Designation as a Recreational River will preserve outstanding and important values of the area. Presently, several federally listed (endangered or threatened) species regularly utilize the area, such as the least tern, pallid sturgeon, bald eagle, and the piping plover. The Ponca Restoration Study and other environmental studies will identify habitat restoration opportunities beneficial to these and other species. Monitoring and evaluation (M&E) will be accomplished for this 59 miles of the Missouri River ecosystem, including M&E for the above listed threatened and endangered species and their habitat, and this will make it possible to manage the river and its resources, and will allow focusing restoration efforts in ways that will most efficiently help to recover the Missouri River ecosystem and its listed species.

The Recreational River designation has the potential to provide additional opportunities for recreation and river access. Opportunities such as the Ponca Resource and Education Center's design and construction will further contribute to the recreational and interpretative opportunities within the reach. The finalization of the General Management Plan (GMP) in FY 99 has increased the potential for additional partnering opportunities for recreational development and river access.

Continuation of erosion control in the Recreational River reach is provided for by the designation, to the extent it is supported by local interests, and is compatible with recreational river values. Planning and design of erosion control structures as needed to protect the values for which the river was designated will continue to be pursued.

FISCAL YEAR 2004: The requested amount of $1,000,000 will be applied as follows:

Item	Amount
Continue Construction, Ponca Backwater Restoration	335,000
Section 7 Biological Opinion Activities (Easement Acquisition)	$ 245,000
Planning, Engineering and Design (Cottonwood Regeneration)	115,000
Initiate Design Activities at Site 1A	250,000
Programs & Project Management Activities	55,000
Total	$ 1,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation:	Payments During Construction and Reimbursement	Annual Operation, Maintenance, and Replacement Costs
Myron Grove River Access		
Pay one-half of the separable costs of recreation facilities and bear all costs of operation, maintenance, and replacement of recreation facilities:	$ 33,000	$ 13,000
Total Non-Federal Costs	$ 33,000	$ 13,000
Ponca Resource and Education Center		
Pay one-half of the separable costs of recreation facilities and bear all Costs of operation, maintenance, and replacement of recreation facilities:	$ 3,354,000	$ 350,000
Total Non-Federal Costs	$ 3,354,000	$ 350,000
Yankton Riverside Park		
Pay one-half of the separable costs of recreation facilities and bear all costs of operation, maintenance, and replacement of recreation facilities.	$ 607,000	$ 77,000
Total Non-Federal Costs	$ 607,000	$ 77,000
General Work		
Pay 25 percent of the first costs of appropriate fish and wildlife work and all of the costs of operation, maintenance, and replacement of fish and wildlife items.	2/	2/

2/ Costs to be developed as planning on project proceeds.

NON-FEDERAL COSTS (continued):

Pay 100 percent of the costs allocated to prevention of erosion to private roads.	2/	2/
Pay the appropriate percent of the cost for prevention of erosion based on purpose for the acquisition of interest in the lands.	2/	2/
Total Non-Federal Costs	2/	2/

2/ Costs to be developed as planning on project proceeds.

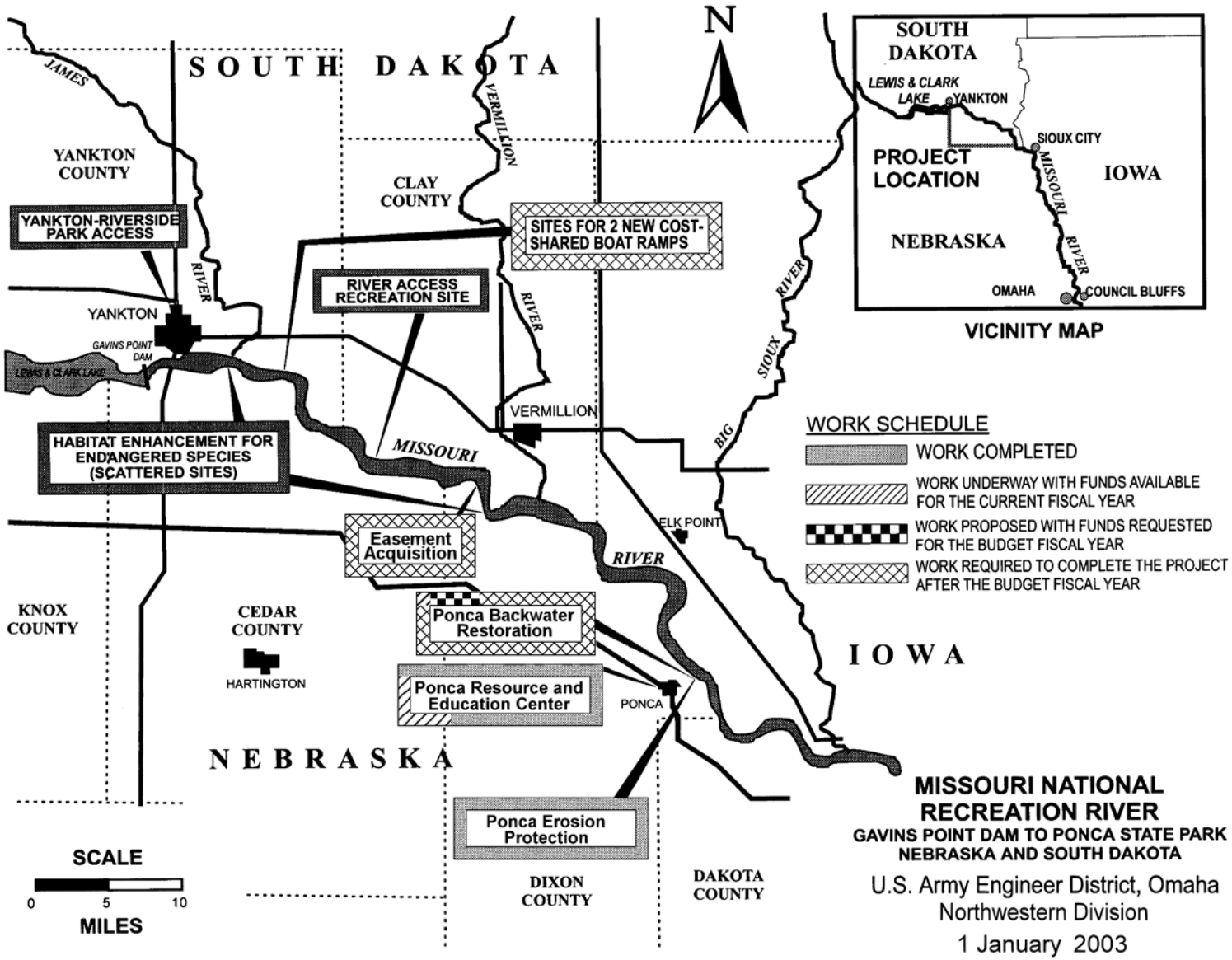
STATUS OF LOCAL COOPERATION: In general, all agencies, local citizens and groups are in favor of the project. Local interests are being contacted as specific requirements are developed. Potential sponsors are the South Dakota Game, Fish and Parks Department; Union, Clay, and Yankton Counties in South Dakota; the Lewis and Clark Natural Resources District; Nebraska Game and Parks Commission and Cedar and Dixon Counties in Nebraska. An agreement pursuant to Section 215 of the Flood Control Act of 1968 was signed with the city of Yankton in 1989 for the construction of Riverside Park in Yankton. Construction was completed 1 June 1991. A cost sharing contract with the State of South Dakota for the Myron Grove access site was signed on 26 June 1986, and construction was completed in June 1987. A Project Cooperation Agreement with the Nebraska Department of Natural Resources for the Ponca Resource and Education Center was signed on 30 May 2001.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $21,000,000 is unchanged from the latest estimate presented to Congress (Fiscal Year 2003) and is limited to that amount by the project authorization.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency on 12 August 1980. A second EIS has been prepared by the National Park Service and the Corps in conjunction with the Park Service General Management Plan (GMP). A joint Record of Decision (ROD) implementing the second EIS was signed on December 17, 1999.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in Fiscal Year 1980. Funds to initiate construction were appropriated in Fiscal Year 1986 with the Federal cost limited to $21,000,000 by law. A cooperative agreement between the U.S. Department of the Interior and the U.S. Department of the Army for implementation of this project was signed on 1 February 1980. The agreement specifies the roles of both parties since the authorizing legislation assigned the overall administration of the river segment to the Department of the Interior while the responsibility for implementation and management of the designated river lies with the Corps of Engineers.

The final GMP/EIS provides opportunities for potential sponsors to participate in cost shared recreational development activities for the upcoming Lewis and Clark bicentennial in the year 2004.


SOUTH DAKOTA
JAMES
YANKTON COUNTY
YANKTON-RIVERSIDE PARK ACCESS
RIVER
YANKTON
GAVINS POINT DAM
LEWIS & CLARK LAKE
HABITAT ENHANCEMENT FOR ENDANGERED SPECIES (SCATTERED SITES)
VERMILLION
CLAY COUNTY
SITES FOR 2 NEW COST-SHARED BOAT RAMPS
RIVER ACCESS RECREATION SITE
RIVER
MISSOURI
Easement Acquisition
KNOX COUNTY
CEDAR COUNTY
HARTINGTON
Ponca Backwater Restoration
Ponca Resource and Education Center
PONCA
NEBRASKA
Ponca Erosion Protection
DIXON COUNTY
DAKOTA COUNTY
ELK POINT
BIG SIOUX RIVER
IOWA
N
SCALE
0 5 10
MILES
SOUTH DAKOTA
LEWIS & CLARK LAKE
YANKTON
SIOUX CITY
PROJECT LOCATION
IOWA
NEBRASKA
MISSOURI RIVER
OMAHA
COUNCIL BLUFFS
VICINITY MAP
WORK SCHEDULE
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
MISSOURI NATIONAL RECREATION RIVER
GAVINS POINT DAM TO PONCA STATE PARK
NEBRASKA AND SOUTH DAKOTA
U.S. Army Engineer District, Omaha
Northwestern Division
1 January 2003

APPROPRIATION TITLE: Construction, General - Local Protection Projects (Flood Control)

PROJECT: Missouri River Levee System, Iowa, Nebraska, Kansas, and Missouri (Active Units) (Continuing)

LOCATION: Along both sides of the Missouri River, Sioux City, Iowa, to the Mouth.

DESCRIPTION: A series of levee units and appurtenant works along both sides of the Missouri River from Sioux City, Iowa, to the Mouth, for protection of agricultural lands and small communities against floods.

AUTHORIZATION: 1941 and 1944 Flood Control Acts

REMAINING BENEFIT - REMAINING COST RATIO: Unit L385 - 2.6 to 1 at 2 1/2 percent; Unit L15 - 2.9 to 1 at 6 7/8 percent; Unit L142 – 2.4 to 1 at 6 3/8 percent

TOTAL BENEFIT-COST RATIO: Information is not available due to completion of individual units at various times since 1948.

INITIAL BENEFIT-COST RATIO: 1.5 to 1 at 2 1/2 percent (FY 1948)

BASIS OF BENEFIT-COST RATIO: Unit L385 benefit and cost data is at 1 October 2000 values and is based on an updated benefit-cost analysis accomplished in 2000. The B/C ratio for L142 is 2.2 to 1 based off the April 2001 GRR. Unit L15 benefit and cost data is at 1 October 2000 values and is based on the General Reevaluation Report approved 3 April 2000.

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		$158,521,000 1/
Estimated Non-Federal Cost		51,858,000 1/ 2/
Cash Contributions	$22,720,000	
Other Costs	29,138,000	
Total Estimated Project Cost		$210,379,000 1/

PHYSICAL DATA

LEVEES	
Average Height	14 feet
Length	468 miles
Area Protected	367,500 acres

1/ Entire Project (Completed and Active Units)
2/ In addition, numerous flood control works have been constructed over many years by individuals and groups as land along the Missouri River has developed for agricultural use. The total cost of these improvements is unknown.

SUMMARIZED FINANCIAL DATA (Continued)		ACCUM PCT OF EST FED COST
Allocations to 30 September 2002	$111,845,000	
Conference Allowance for FY 2003	3/	
Allocation for FY 2003	3/	
Allocations thru FY 2003	3/	3/
Allocation Requested for FY 2004	7,000,000	3/
Programmed Balance to Complete after FY 2004	3/	
Unprogrammed Balance to Complete after FY 2004	3/	

3/ To Be Determined.

STATUS (1 Jan 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Completed Units:		
L624-627, R616, L611-614, R613, L601, L594, R580, L575, R573, R562, L550-561, R548, L536, R520, R512-513, R500, Kimsey-Holly Creek, L497, L488, R482, L476, R460-471, L455, L443-448, R440, L408, L400, R351, & L246	100	Complete
Active Units:		
Riverside-Quindaro Bend Levee District (L385)	43	3/
Jefferson City (L142)	12	3/
Consolidated North County Levee District (L15)	44	3/
Entire Project (Completed and Active Units)	70	3/

JUSTIFICATION: During FY 2001, Federal reservoirs and levees within Missouri River Division boundaries prevented an estimated $327 million in damages. Since completion, these projects have prevented damages estimated to total $27.2 billion through FY 2001. Annual benefits are all flood control.

FISCAL YEAR 2004: The requested amount of $7,000,000 will be applied as follows:

Item	Amount
Continue Construction for Unit L385	$ 6,210,000
Continue Planning, Engineering and Design for Unit L142	95,000
Continue Construction for Unit L15	695,000
Total	$7,000,000

NON-FEDERAL COSTS: The total non-Federal project cost is estimated at $51,858,000. For the completed units, non-Federal sponsors provided lands, easements, rights-of-way and relocations valued at $8,324,000, and also contributed $400,000 of interior drainage work. The estimated non-Federal costs for units L385, L142 and L15 totals $43,134,000 and the details of the non-Federal costs are shown below. For the entire project the sponsors are also providing operation, maintenance, and replacements costs estimated at a current annual cost of $817,000 (1 October 2000).

Remaining Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Unit L385 - In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 and in accordance with the Project Cooperation Agreement signed 25 September 1997, the non-Federal sponsor must comply with the requirements listed below:		
Provide lands, easements and rights-of-way	$6,801,000	
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project	5,514,000	
Contingencies	1,448,000	
Pay 8 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent of Unit L385, and bear all costs of operation maintenance, and replacement of flood control facilities	4,517,000	$40,000 (1 October 2000)
Total Non-Federal Required Costs	18,280,000	
In addition voluntary special cost sharing will be provided by the non-Federal interests to pay 100 percent of costs allocated to land development	16,372,000	
Total Non-Federal Costs During Construction (L385)	34,652,000	

The non-Federal sponsor understands that payments are required during project construction.

NON-FEDERAL COSTS: (Continued)

Remaining Requirements of Local Cooperation (continued)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Unit L142 - In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:		
Provide lands, easements and rights-of-way	$2,342,000	
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project	2,458,000	
Contingencies	75,000	
Pay 5 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent of Unit L142, and bear all costs of operation, maintenance, and replacement of flood control facilities	1,252,000	$41,000 (1 October 2000)
Total Non-Federal Costs During Construction (L142)	6,127,000	
The non-Federal sponsor understands that payments are required during project construction.		

NON-FEDERAL COSTS: (Continued)

Remaining Requirements of Local Cooperation (continued)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Unit L15 - In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:		
Provide lands, easements and rights-of-way	$1,760,000	
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project	0	
Contingencies	185,000	
Pay 4 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent of Unit L15, and bear all costs of operation, maintenance, and replacement of flood control facilities	410,000	$4,900 (1 October 2000)
Total Non-Federal Costs During Construction (L15)	2,355,000	
The non-Federal sponsor understands that payments are required during project construction.		

STATUS OF LOCAL COOPERATION:

Unit L385 - Sponsor of Unit L385 is the Riverside-Quindaro Bend Levee District. The sponsor agreed to assume additional voluntary cost sharing for costs associated with land development in the Quindaro Bend portion of the project to obtain Washington-level project support. Unit L385 was approved for a new construction start in FY 1994. The Limited Reevaluation Report was approved 24 April 1997. The Project Cooperation Agreement was executed 23 September 1997. Construction contract was awarded March 29,2002.

Unit L142 – By letter dated 11 January 1999 from the Mayor of Jefferson City, Missouri, and a City Council Resolution dated 2 November 1998, the City has expressed a commitment to sponsor the project. They have reviewed the final General Reevaluation Report and understand the requirements therein. Changes in the hydrology and the Flow Frequency Study have warranted a Limited Reevaluation Report due in 3rd quarter 2003.

Unit L15 – Sponsor of Unit L15 is Consolidated North County Levee District. P. L. 106-377, 27 October 2000, included authorization to initiate construction. The Project Cooperation Agreement was executed in FY 2001.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $158,521,000 for the entire Project (Completed and Active Units) is an increase of $5,609,000 from the latest estimate ($152,912,000) presented to Congress (FY 2003). This change is due to higher than expected contract award, price escalation on construction features and changes in projected inflation rates.

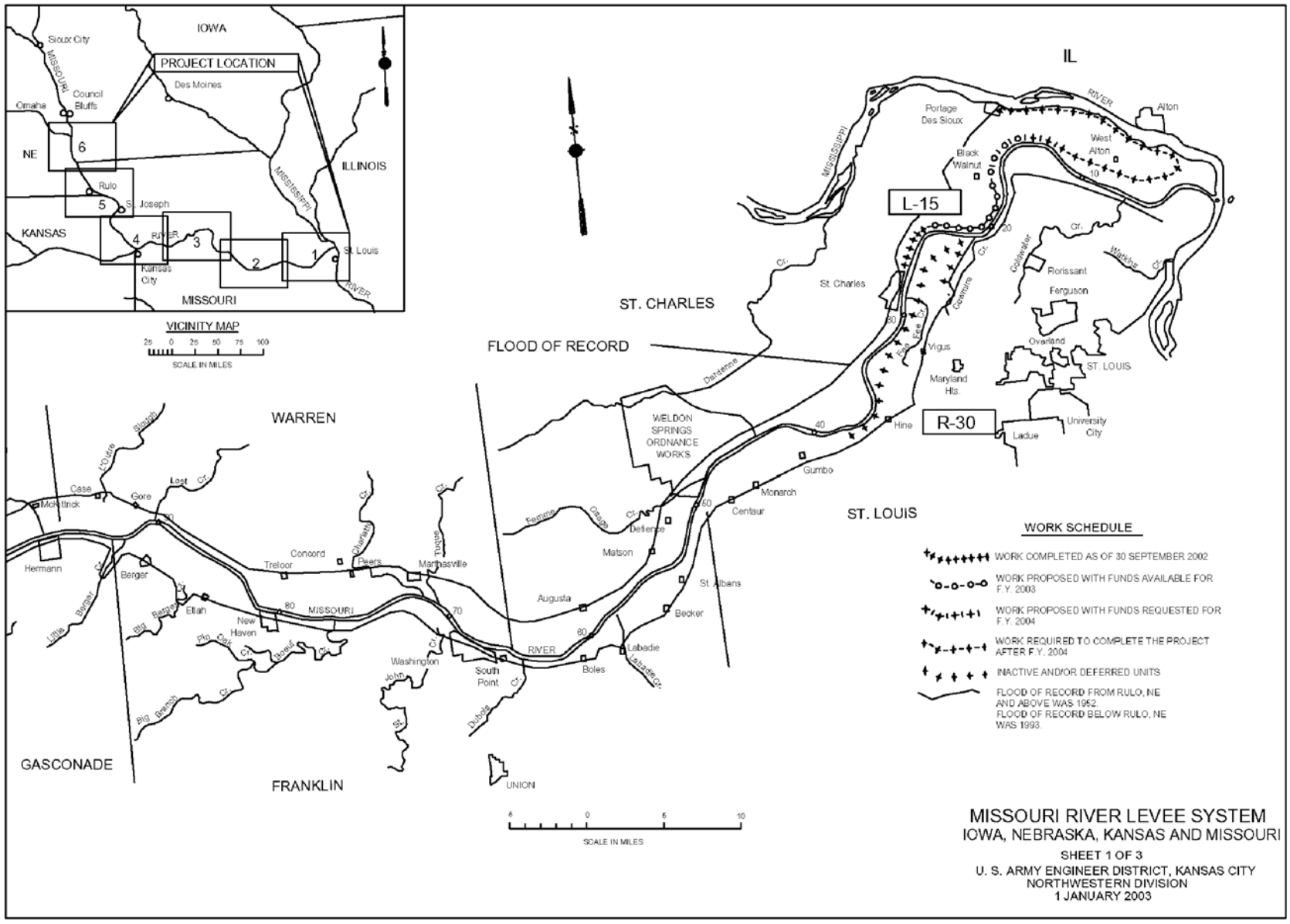
STATUS OF ENVIRONMENTAL IMPACT STATEMENTS: The final Environmental Impact Statement for Unit L385 was filed with the Environmental Protection Agency on 18 November 1983. On L-142; an environmental assessment (EA) was completed in April FY 2001, and a Finding of No Significant Impact (FONSI) was signed in April FY 2001. For L-15; an environmental assessment (EA) was completed in August FY 1999, and a Finding of No Significant Impact (FONSI) was signed in August FY 1999.

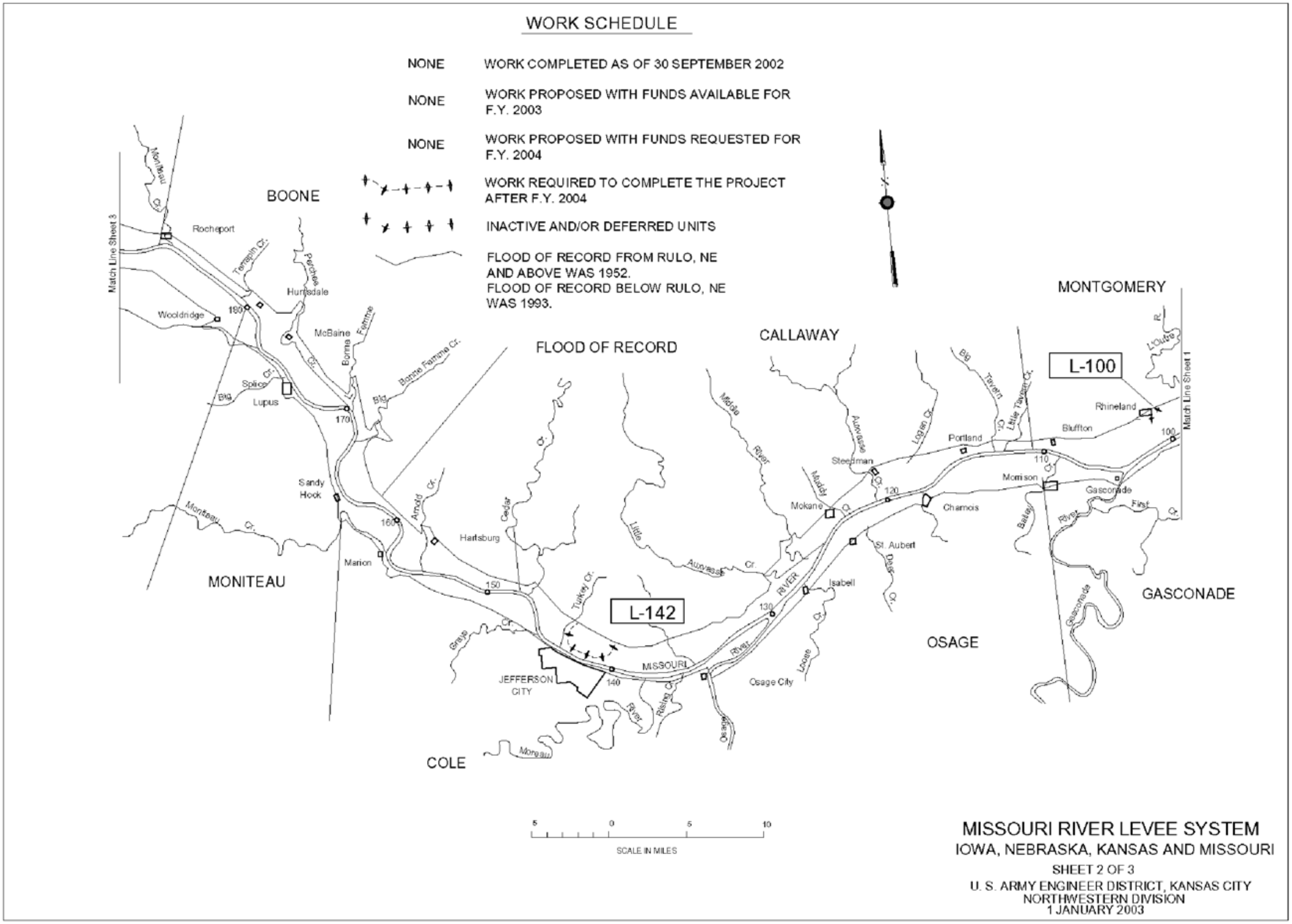
OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1946 and to initiate construction in FY 1948.

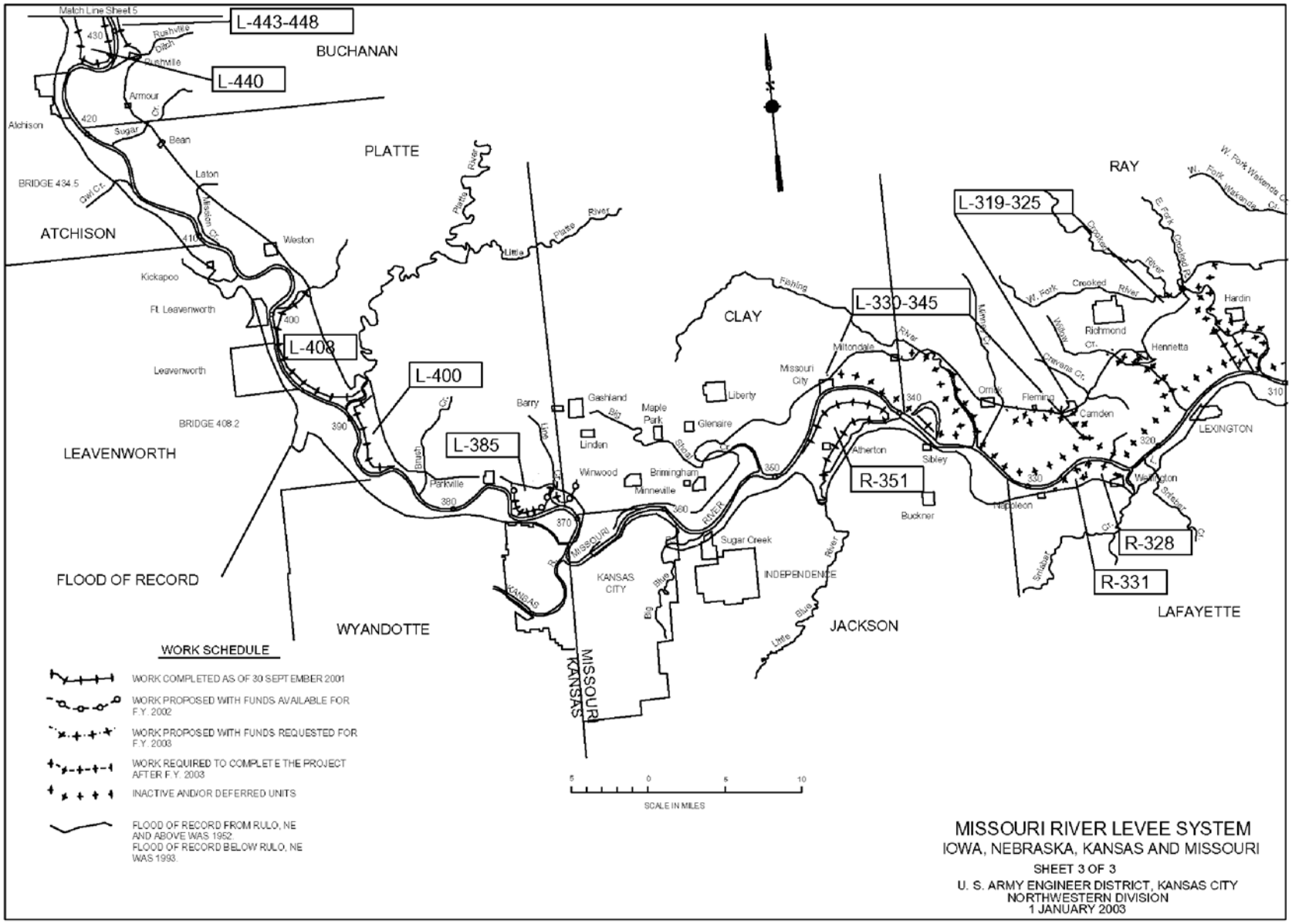
Unit L385: Notice to proceed was issued on 26 April 2002. Favorable weather conditions since contract award have allowed Contractor earnings of approximately 33% of the Construction Contract Cost, placing it ahead of schedule.

Unit L142: This unit was reclassified to the active category in May 1991 based on the preliminary results of an Initial Appraisal Report prepared in response to a request from the City of Jefferson City, Missouri. The Initial Appraisal Report, approved in August 1991, concluded that a flood control project could be feasible based on preliminary benefit and cost data and recommended proceeding with detailed planning, engineering and design. Funds to initiate preparation of a General Reevaluation Report were appropriated in FY 1993. The July 1993 flood event devastated the entire area being evaluated. A new economic survey, study of alternate levee alignments, and new cost estimates were required as a result of the flood damages. After the flood of 1993, several properties were bought out under the Federal Emergency Management Hazard Mitigation Grant Program. Cooperating Federal and State agencies have worked extensively on this challenging issue. The GRR has been made final. Draft analysis and documentation indicates that a project is feasible and can be economically justified. The preparation of plans and specifications has been initiated. Construction is not yet scheduled.

Unit L15: FY 2003 funds are being used to complete the first item of construction and initiate the second item of construction. PCA was executed 29 Aug FY 2001.


IOWA
Sioux City
PROJECT LOCATION
Des Moines
Council Bluffs
Omaha
NE
ILLINOIS
Rulo
St. Joseph
KANSAS
Kansas City
St. Louis
MISSOURI
VICINITY MAP
SCALE IN MILES
IL
Portage Des Sioux
Alton
West Alton
Black Walnut
L-15
St. Charles
ST. CHARLES
FLOOD OF RECORD
Florissant
Ferguson
Overland
Maryland Hts.
ST. LOUIS
R-30
Hine
Ladue
University City
WELDON SPRINGS ORDNANCE WORKS
Gumbo
Monarch
Centaur
Defiance
Matson
Augusta
St. Albans
Becker
Labadie
Boles
South Point
Washington
WARREN
Hermann
Berger
Treloar
Concord
Pleers
Marthasville
New Haven
Ellah
GASCONADE
FRANKLIN
UNION
WORK SCHEDULE
WORK COMPLETED AS OF 30 SEPTEMBER 2002
WORK PROPOSED WITH FUNDS AVAILABLE FOR F.Y. 2003
WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2004
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2004
INACTIVE AND/OR DEFERRED UNITS
FLOOD OF RECORD FROM RULO, NE AND ABOVE WAS 1952.
FLOOD OF RECORD BELOW RULO, NE WAS 1993.
SCALE IN MILES
MISSOURI RIVER LEVEE SYSTEM
IOWA, NEBRASKA, KANSAS AND MISSOURI
SHEET 1 OF 3
U. S. ARMY ENGINEER DISTRICT, KANSAS CITY
NORTHWESTERN DIVISION
1 JANUARY 2003


WORK SCHEDULE
NONE WORK COMPLETED AS OF 30 SEPTEMBER 2002
NONE WORK PROPOSED WITH FUNDS AVAILABLE FOR F.Y. 2003
NONE WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2004
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2004
INACTIVE AND/OR DEFERRED UNITS
FLOOD OF RECORD FROM RULO, NE AND ABOVE WAS 1952.
FLOOD OF RECORD BELOW RULO, NE WAS 1993.
BOONE
MONITEAU
COLE
CALLAWAY
OSAGE
GASCONADE
MONTGOMERY
FLOOD OF RECORD
L-142
L-100
Match Line Sheet 3
Match Line Sheet 1
Rocheport
Wooldridge
Hurdsdale
McBaine
Lupus
Sandy Hook
Marion
Hartsburg
JEFFERSON CITY
Osage City
Isabell
St. Aubert
Mokane
Steedman
Portland
Chamois
Morrison
Gasconade
Bluffton
Rhineland
MISSOURI
RIVER
SCALE IN MILES
MISSOURI RIVER LEVEE SYSTEM
IOWA, NEBRASKA, KANSAS AND MISSOURI
SHEET 2 OF 3
U. S. ARMY ENGINEER DISTRICT, KANSAS CITY
NORTHWESTERN DIVISION
1 JANUARY 2003


L-443-448
L-440
L-408
L-400
L-385
L-319-325
L-330-345
R-351
R-328
R-331
BUCHANAN
PLATTE
RAY
ATCHISON
LEAVENWORTH
CLAY
WYANDOTTE
JACKSON
LAFAYETTE
FLOOD OF RECORD
WORK SCHEDULE
WORK COMPLETED AS OF 30 SEPTEMBER 2001
WORK PROPOSED WITH FUNDS AVAILABLE FOR F.Y. 2002
WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2003
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2003
INACTIVE AND/OR DEFERRED UNITS
FLOOD OF RECORD FROM RULO, NE AND ABOVE WAS 1952
FLOOD OF RECORD BELOW RULO, NE WAS 1993.
SCALE IN MILES
MISSOURI RIVER LEVEE SYSTEM
IOWA, NEBRASKA, KANSAS AND MISSOURI
SHEET 3 OF 3
U. S. ARMY ENGINEER DISTRICT, KANSAS CITY
NORTHWESTERN DIVISION
1 JANUARY 2003

APPROPRIATION TITLE: Construction, General - Flood Control, Local Protection

PROJECT: Perry Creek, Iowa (Continuing)

LOCATION: The Perry Creek basin is located in Woodbury and Plymouth Counties in northwestern Iowa. The downstream 5 miles of the basin lies within the corporate limits of Sioux City, Iowa, and drains the central portion of the city.

DESCRIPTION: The project consists of 14,800 linear feet of grass and rock lined channel, 1,500 linear feet of new conduit, modification of 710 linear feet of existing conduit, a concrete stilling basin and a basin-wide flood warning system.

AUTHORIZATION: Water Resources Development Act of 1986, Section 401a.

REMAINING BENEFIT-REMAINING COST RATIO: 1.36 to 1 at 8 1/4 percent

TOTAL BENEFIT-COST RATIO: .96 to 1 at 8 1/4 percent

INITIAL BENEFIT-COST RATIO: 1.09 to 1 at 8 1/4 percent (FY 1994)

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in July 1992 at October 1990 price levels and were reevaluated in FY 1996. Revised costs and benefits are being prepared in a Post Authorization Change Report to be complete in FY 2003.

SUMMARIZED FINANCIAL DATA:

			ACCUM PCT OF EST FED COST	STATUS (1 JAN 2003)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 58,827,000				
Estimated Non-Federal Cost		38,232,000				
Cash Contribution	$ 2,166,000			Entire Project	75	1/
Other Costs	$ 36,066,000					
Total Estimated Project Cost		$ 97,059,000				
Allocations to 30 September 2002		$ 38,257,000				
Conference Allowance for FY 2003		1/				
Allocation for FY 2003		1/				
Allocations through FY 2003		1/	1/			
Allocation Requested for FY 2004		2,200,000	1/			
Programmed Balance to Complete after FY 2004		1/				
Unprogrammed Balance to Complete after FY 2004		0				

1/ To Be Determined

PHYSICAL DATA

Relocations - Roads, Utilities, Structures and Bridges	13 roadways 1 railroad	Channels:	2.8 miles
		Conduit:	2,210 linear feet
Replacements:	7 roadways 1 railroad	Stilling Basin:	132 linear feet, concrete
		Recreation Trail	22,500 linear feet, asphalt
New:	2 roadways	Improvements	135 Residences
Not Replaced:	4 roadways		51 Commercial Properties

JUSTIFICATION: The project will provide urgently needed 100-year flood protection to the metropolitan and downtown areas of Sioux City, Iowa. The flood problem is severe under the present stage of urban development. Between 1892 and 1997, 26 floods have occurred on Perry Creek with very little warning time. Ten of these floods were considered to be major. The floods of 18-19 May 1990 and 22-23 May 1990 produced damages estimated between $9,000,000 and $11,000,000. Average annual flood damages are estimated at $5,851,000, and the project will reduce the flood damage potential by approximately 90 percent. The estimated average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	$ 5,747,000
Recreation	162,000
Conduit Cost Savings	560,000
Advance Replacement of Bridges	84,000
Total	$6,553,000

FISCAL YEAR 2004: The requested amount of $2,200,000 will be applied as follows:

Item	Amount
Continue Phase IV Conduit and Channel Construction	$ 2,100,000
Construction Management	100,000
Total	$ 2,200,000

NON-FEDERAL COST: In accordance with the project authorization and the cost sharing policies contained in Section 103(a), (b), (c), (h) and (m) of the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirement of Local Cooperation	Payment during Construction	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide all lands, easements, right-of-ways, and dredged material disposal areas.	$ 15,503,000	
Relocate utilities, buildings, roads, bridges (except railroad bridges), and other facilities, where necessary for construction of the project.	20,563,000	
Bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities		$ 29,800
Pay one-half of the separable cost allocated to recreation, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement.	2,137,0000	1,600
Pay 25 percent of the costs allocated to non-structural flood control and bear all costs of operation, maintenance, repair, rehabilitation, and replacement	29,000	2,600
Total Non-Federal Costs	$ 38,232,000	$ 34,000

The ability to pay provisions of WRDA of 1986 have been modified by rule changes published in the Federal Register on January 26, 1995. The new provisions allow elimination of the 5 percent cash contribution if both of the following are met 1) LERRD comprise 35 percent or more of the total project cost and 2) the per capita cost exceeds $300 per person. The city of Sioux City, Iowa meets both of the requirements to waive the 5 percent cash contribution.

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement (PCA) with the city of Sioux City, Iowa to sponsor the Perry Creek flood control project was executed on 12 March 1995. The current non-Federal cost estimate of $38,232,000, which includes a cash contribution of $2,166,000, is an increase of $13,291,000 from the non-Federal cost estimate of $24,941,000 noted in the PCA, which included a cash contribution of $161,000. The sponsor is aware of and is in agreement with the need for the increases in project cost.

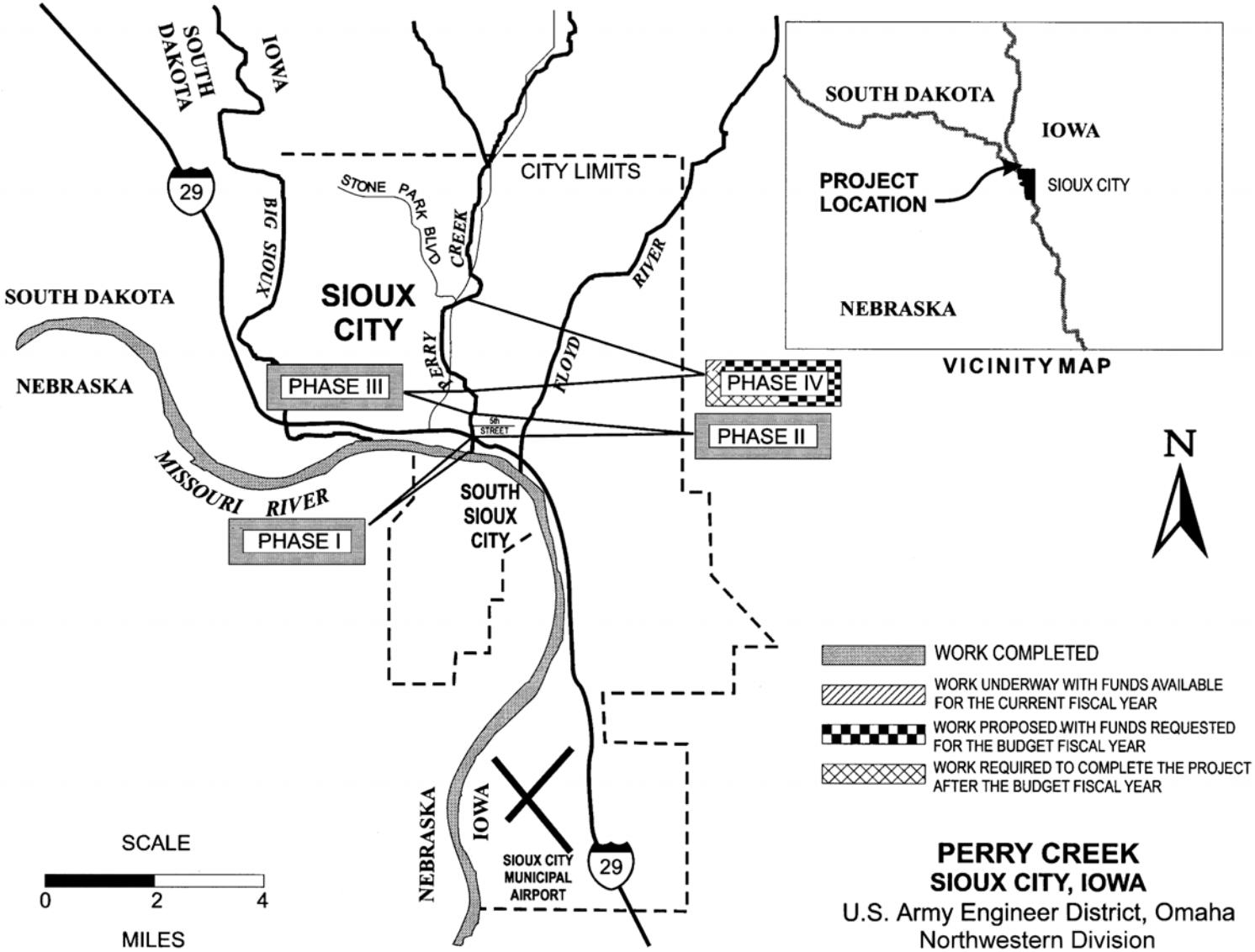
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $58,827,000 is an increase of $12,092,000 from the latest estimate ($46,735,000) presented to Congress (FY 2003). This change includes the following items:

Item	Amount	
Price Escalation on Construction Features and Changes in Projected Inflation Rates	$ - 69,000	
Other Estimating Adjustments	+ 12,161,000	(See OTHER INFORMATION)
Total	$ +12,092,000	

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final EIS was filed with EPA on 17 July 1992.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1984 and funds to initiate construction were appropriated in FY 1995. The mitigation portion of the project is estimated to cost $25,000.

During the final design of the project in June 2002 it was found that the total project cost would exceed the section 902 limit. A Post Authorization Change report will be completed in early 2003 and reauthorization will be requested in the next WRDA. The revised project estimate reflects a 33 percent increase in real estate cost, an 80 percent increase in utility and road relocation cost and a 22 percent increase in the design and construction cost for the channel, conduit and stilling basin. The current project cost estimate also includes $4,086,000 for additional cost shared recreation facilities and $456,000 for investigation of additional flood reduction measures, curation of artifacts and development of FEMA mapping. The current estimate does not include $1,238,600 that the city has requested for recreational and park features that are not approved for cost sharing.


SOUTH DAKOTA
IOWA
29
BIG SIOUX
CITY LIMITS
STONE PARK BLVD
PERRY CREEK
FLOYD RIVER
SIOUX CITY
SOUTH DAKOTA
NEBRASKA
PHASE III
PHASE IV
PHASE II
5th STREET
MISSOURI RIVER
PHASE I
SOUTH SIOUX CITY
NEBRASKA
IOWA
SIOUX CITY MUNICIPAL AIRPORT
29
SCALE
0 2 4
MILES
SOUTH DAKOTA
IOWA
PROJECT LOCATION
SIOUX CITY
NEBRASKA
VICINITY MAP
N
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
PERRY CREEK
SIOUX CITY, IOWA
U.S. Army Engineer District, Omaha
Northwestern Division
1 January 2003

APPROPRIATION TITLE: Construction, General - Local Protection Projects (Flood Control)

PROJECT: Mt. St. Helens Sediment Control, Washington (Continuing)

LOCATION: A sediment retention structure on the North Fork Toutle River, 3 miles upstream from its confluence with the Green River; a Fish Collection Facility located on the North Fork Toutle River, 8,500 feet downstream of the Sediment Retention Structure; levee improvements at Kelso, Washington on the Cowlitz river (river mile 3 to river mile 8); and dredging in the Cowlitz River (river mile 0 - to river mile 20); all located in Cowlitz County, southwest Washington. The river systems impacted by the project include the Toutle, Cowlitz and a portion of the Coweeman River. Most of the population affected by the problems reside in the communities of Longview, Kelso, Lexington and Castle Rock, Washington.

DESCRIPTION: An earth and rock fill sediment retention structure with a spillway height of 125 feet, length of 1,800 feet with a retention capacity of 258 million cubic yards of sediment; a barrier type fish trap facility with a length of 300 feet and a 210 foot fish ladder; levee raise and improvements on the Cowlitz River at Kelso, WA; dredging in the Cowlitz River from the mouth to river mile 20; and provide system-wide flood protection throughout the fifty year life cycle (1985-2035) at congressionally mandated levels.

AUTHORIZATION: Supplemental Appropriations Act, 1985, PL 99-88.

REMAINING BENEFIT - REMAINING COST RATIO: The remaining benefit-remaining cost ratio is 6.9 to 1 at 8-5/8 percent.

TOTAL BENEFIT - COST RATIO: The total benefit cost ratio is 2.7 to 1 at 8-5/8 percent.

INITIAL BENEFIT - COST RATIO: The benefit-cost ratio for the fiscal year for which Congress appropriated initial construction funds (FY 1986) is 3.0 to 1 at 8-5/8 percent. The benefit to cost ratio is based on the project functioning independently.

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available evaluation reported in the Chief of Engineers Report, April 1985 at 1988 price levels.

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost			$199,500,000
Programmed Construction		$122,916,000	
Unprogrammed Construction		76,584,000	
Estimated Non-Federal Cost			24,600,000
Programmed Construction		24,600,000	
Cash Contribution	$ 3,600,000		
Other	21,000,000		
Unprogrammed Construction		0	

1/ To be Determined

STATUS: (1 Jan 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Sediment Retention		
Structure	100	Feb 90
Dredging	100	Mar 90
Future Dredging	0	1/
Entire Project	60	1/

SUMMARIZED FINANCIAL DATA (Continued)

Total Estimated Programmed Construction Cost	147,516,000			
Total Estimated Unprogrammed Construction Cost	76,584,000			
Total Estimated Project Cost		224,100,000		
			Accum. % of Est Fed Cost	
Allocations to 30 September 2002		116,854,000		
Conference Allowance for FY 2003		281,000		
Allocation for FY 2003		1/		
Allocations Through FY 2003		1/	1/	
Allocation Requested for FY 2004		200,000	1/	
Programmed Balance to Complete after FY 2004		1/		
Unprogrammed Balance to Complete after FY 2004		1/		

PHYSICAL DATA

Dam: Type - Earth and Rockfill
Spillway Height - 125 feet;
Length - 1,800 feet
Spillway Width - 400 feet

Fish Facility: 300 feet long, concrete with stilling basin

Fish Ladder - 210 feet long by 6 feet wide, concrete

Lands and Damages: Acres -

5,374	(Sediment Retention Structure)
1,300	(Disposal Sites for Dredging)
25	(Levee Improvements)

Ultimate Sediment Capacity:

258 million cubic yards

1/ To Be Determined

JUSTIFICATION: The eruption of Mt. St. Helens in 1980 resulted in the movement of sediment creating a threat of flooding and navigation disruption in southwestern Washington. With projected future erosion of the debris avalanche and sediment movement, there exists a continuing threat of flooding, with the largest amount of damages occurring to the community of Kelso and to the transportation corridor crossing the Toutle River (Interstate Highway I-5, and Burlington-Northern Railway line). Lesser damages would occur to the communities of Longview, Lexington and Castle Rock. The potential disruption of navigation on the Columbia River is considered to be negligible under average sediment conditions. Eventually up to 550 million cubic yards would probably be eroded from the debris avalanche. The Cowlitz River was last dredged in November 1989. Since then the river channel has remained stable or tended to scour.

In 1997, the sediment behind the SRS reached the last row of pipes in the outlet structure and was completely closed off in 1998. Flows from the pool now are released through the spillway, which may have an impact on downstream deposition of sediment and resultant flood protection. Studies, using current updated data are being completed to predict if the loss of sediment storage at the SRS will result in a change in downstream deposition. The feasibility study and authorization anticipated the SRS would fill up and plans included subsequent evaluation and additional construction. Design alternatives are being considered to maintain flood and navigation protection as mandated by Congress until 2035. The average annual benefits are estimated to be $29,548,000 (October 1988 price level). In addition to the benefit of preventing flood damages, the project is anticipated to reduce the costs for providing temporary emergency flood protection (under PL 98-63) resulting from the sediment problem.

Congressionally mandated levels of flood protection are 167, 143, 167 and 188 years for Longview, Kelso, Lexington and Castle Rock, respectively, over the 50-year project life.

Annual Benefits	Amount
Flood Damage Prevention	$15,558,000
Dredging Savings	13,990,000
Total	$29,548,000

FISCAL YEAR 2004: The requested amount of $200,000 will be used to track sediment migration and flood protection levels for the construction of follow on long term alternatives for system-wide flood and navigation protection.

NON-FEDERAL COST: In accordance with the agreement between the United States of America and the State of Washington for local cooperation at, along and near the Cowlitz and Toutle Rivers, Cowlitz County, State of Washington, the total estimated non-federal cost for construction is $24,600,000 including allowances for inflation. The non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction	Annual Operation Maintenance and Replacement Costs
Provide lands, easements, rights-of-way, and dredged material disposal areas.	$16,200,000	
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	400,000	
Mitigation for dredging operations	4,400,000	$846,000
Sales & Use Tax Offset from the State of Washington	3,600,000	
Total Non-Federal Payments During Construction	$24,600,000	

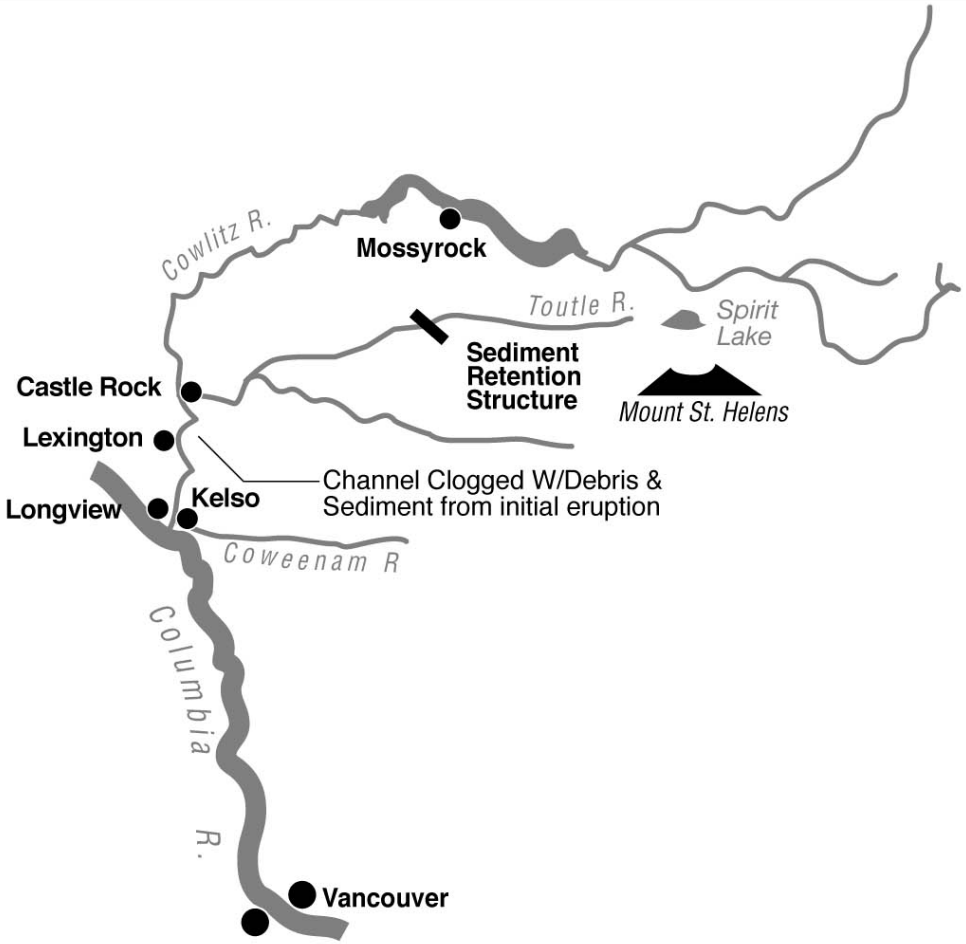
STATUS OF LOCAL COOPERATION: A local cooperation agreement (LCA) for the Sediment Control project was signed on 26 April 1986. The State of Washington is the sponsor for the Sediment Retention Structure (SRS) and dredging portions of the project. Consolidated Diking Improvement District No. 3 and Drainage Improvement District No. 1 are sponsors for the Kelso levee improvement.

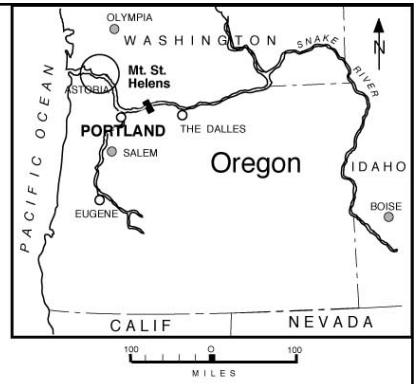
Land rights have been obtained by the State over the lands required for initial construction of the SRS. All persons residing within the SRS acquisition boundary have been relocated. The Diking and Drainage Districts have been furnished right-of-way requirements and are continuing their acquisition program. The State is continuing to acquire rights-of-way for additional dredge disposal areas.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $199,500,000 remains unchanged from the latest estimate submitted to Congress (FY 2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with the EPA in December, 1984.

OTHER INFORMATION: Funds to initiate preconstruction planning were allotted in FY 1985 and construction in FY 1986. Estimated fish and wildlife mitigation costs are $13,858,000.





Schedule	Work completed as of:
Analysis of Cowlitz River sedimentation	Sept 2001
Engineering and risk assessment for levee systems	FY 2002
Flood protection verification & monitoring	FY 2003
Assessment and implememtation of flood protection alternatives	FY 2004 and after

Flood Control

Mt. St. Helens Sediment Control

Washington

Scale as Shown

US Army Engineer District, Portland
Northwestern Division

Prepared 1 January 2003

APPROPRIATION TITLE: Construction, General - Local Protection, Flood Control

PROJECT: Wood River, Grand Island, Nebraska (Continuing)

LOCATION: This project is located in Hall County Nebraska, approximately midway between the city of Grand Island and Interstate 80.

DESCRIPTION: The proposed project consists of a 5 mile long diversion channel with levees on both sides. The channel will divert Wood River flood flows to the Platte River. The diversion structure will be located downstream from the Highway 281 bridge that crosses the Wood River. The diversion channel will begin at that point and run eastward to the Platte River. Current county and city bridges that cross the channels will be designed and constructed by the sponsor. One bridge for the Union Pacific Railroad (UPRR) will be constructed. In addition, a 2 mile long tie-off levee and small diversion channel will be built west of Highway 281 to prevent Wood River flood flows from spilling into the Warm Slough basin nearby and outflanking the diversion channel.

AUTHORIZATION: Water Resources Development Act (WRDA) of 1996, Section 101K modified by WRDA of 1999, Section 335.

REMAINING BENEFIT-REMAINING COST RATIO: 30.0 to 1 at 7 3/8 percent

TOTAL BENEFIT-COST RATIO: 2.0 to 1 at 7 3/8 percent

INITIAL BENEFIT-COST RATIO: 2.3 to 1 at 7 3/8 percent (FY 1997)

BASIS OF BENEFIT-COST RATIO: Benefits are taken from the Post Authorization Change Report dated March 1998, at October 1997 price levels.

SUMMARIZED FINANCIAL DATA:			ACCUM	STATUS	PERCENT	COMPLETION
Estimated Federal Cost		$ 9,006,000	PCT OF EST	(1 Jan 2003)	COMPLETE	SCHEDULE
Estimated Non-Federal Cost		3,713,000	FED COST			
Cash Contributions	$ 636,000			Entire Project	68	Sep 2004
Other Costs	3,077,000					
Total Estimated Project Cost		$ 12,719,000				
Allocations to 30 September 2002		$ 4,625,000				
Conference Allowance for FY 2003		1/				
Allocation for FY 2003		1/	1/			
Allocations through FY 2003		1/	88			
Allocation Requested for FY 2004		1,082,000	100			
Programmed Balance to Complete after FY 2004		0				
Unprogrammed Balance to Complete after FY 2004		0				

1/ To Be Determined.

PHYSICAL DATA:

Real Estate:	1250	acres	Relocations:		
Channels: Length	7	miles	Bridges:	1	Railroad
Warm Slough diversion	420	cfs	Utilities:		
Wood River diversion	7,000	cfs	Water lines	800	lf
Excavation	743,000	cy	Sewer lines	300	lf
Rip Rap	1,700	tons	Gas lines	1,900	lf
Levees:			Comm Cables	7,000	lf
Length	12	miles	Elect Power	5,500	lf
Embankment	465,000	cy	Fencing	600	lf
Average height	4	ft			

JUSTIFICATION: The Wood River basin originates about 80 miles west of Grand Island, Nebraska, and drains approximately 770 square miles above Grand Island. Flooding and erosion in the project area are widespread and long in duration. Since 1899, 41 flood events have been recorded. This is an average flood occurrence of about once every 2 years. The most recent flood was in the summer of 1993. The proposed project will provide 100-year flood protection. As of Oct 1993, $187.7 million of residential and $31.2 million of commercial property are subject to flood damage. The average annual damages without the project are $2.5 million. The average annual damages with the project are $0.6 million. The flood of record occurred in 1967 and caused an estimated $13.4 million in damages. Petitions containing 1,034 signatures sent to congressional representatives in 1995 indicate strong local support for this project. Average annual benefits are as follows:

Annual Benefits	Amount
Flood Damage Reduction:	
Urban Flood	$1,790,000
Agricultural Administration	135,000
Flood Insurance Cost Savings	184,000
Flood Proofing Cost Savings	68,000
Total Benefits	$ 2,177,000

FISCAL YEAR 2004: The requested amount of $1,082,000 will be applied as follows:

Item	Amount
Complete Construction of Diversion Channel, Levees and Diversion Structure	$ 921,000
Planning, Engineering and Design	22,000
Construction Management	139,000
Total	$ 1,082,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsors must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Provide all lands, easements, right-of-ways, and dredged material disposal areas.	$ 2,064,000	
Modify or relocate of utilities, buildings, roads, bridges (except railroad bridges), and other facilities, required for construction of the project.	1,013,000	
Pay 5 percent of the costs allocated to flood control and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	636,000	$ 30,000
Total Non-Federal Costs	$ 3,713,000	$ 30,000

The non-Federal sponsors must also agree to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement (PCA) with the Central Platte Natural Resources District to sponsor the Wood River flood control project was executed on 2 May 2000. The current non-Federal cost estimate of $3,713,000, which includes a cash contribution of $636,000, is a decrease from the non-Federal cost estimate of $4,126,000 noted in the PCA, which included a cash contribution of $733,000. The sources of non-Federal funding and their share of project funds are as follow: Central Platte Natural Resources District (NRD), $2,956,750; City of Grand Island, Nebraska, $453,610; Hall County, $151,320; Merrick County, $151,320. The largest share of the non-Federal funding will come from the State of Nebraska through the NRD.

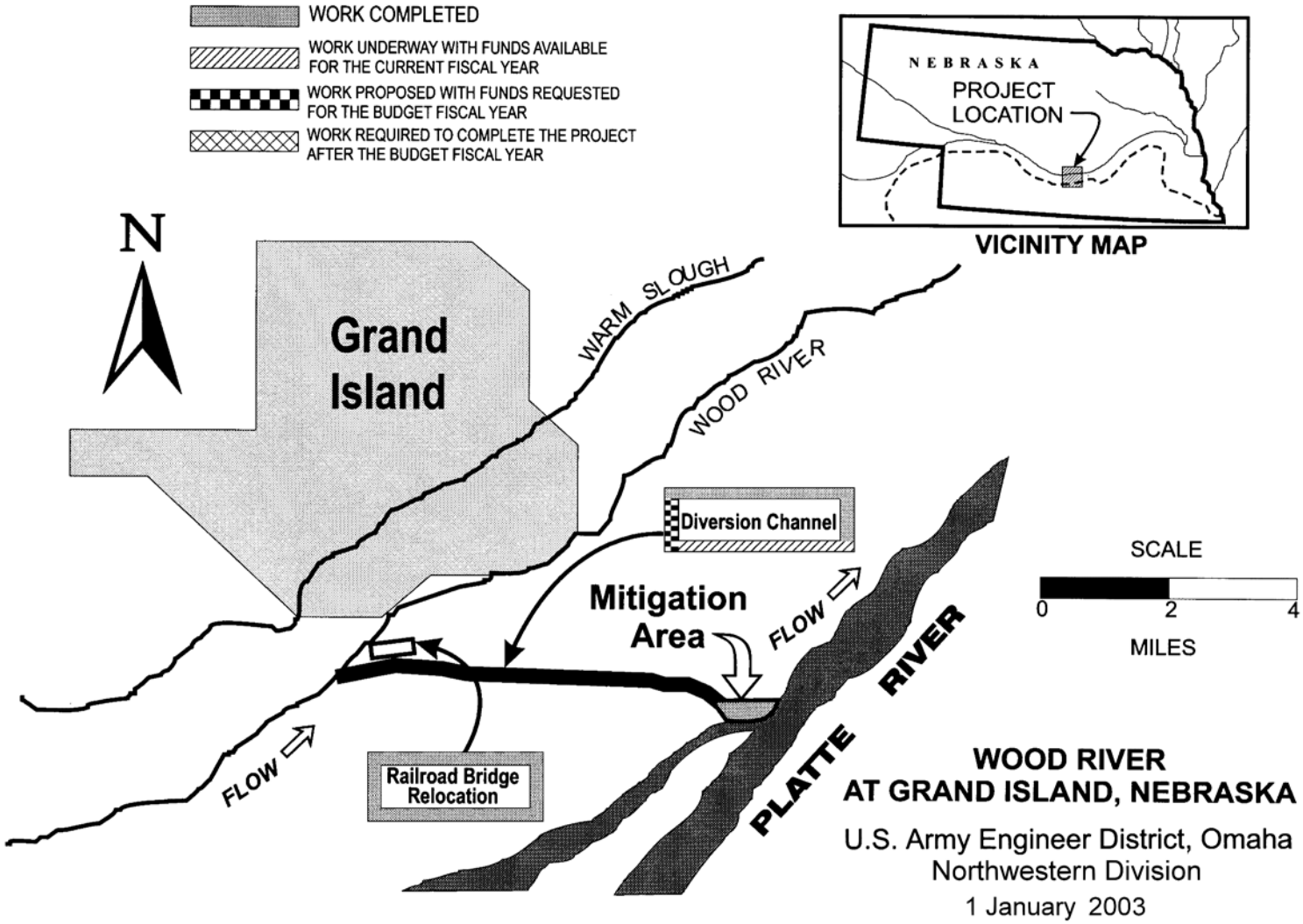
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $9,006,000 is a decrease of $1,556,000 from the latest estimate ($10,562,000) presented to Congress (FY 2003). This change includes the following items:

Item	Amount
Price Escalation on Construction Features and Changes in Project Inflation Rates	$ -196,400
Other Estimating Adjustments	-1,359,600
Total	$ -1,556,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Feasibility Report/Environmental Assessment was completed in March 1994. The "Findings of No Significant Impact" was signed by the District Commander in April 1993.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1993 and for construction in Fiscal Year 1997. The mitigation portion of the project will consist of creating 9.2 acres of wetlands to replace the wetlands lost during construction of the diversion channel and the acquisition of approximately 30 acres of wet meadow for protection as a natural heritage and educational area.

During the final design of the project in July 1997 it was found that the total project cost would exceed the Section 902 limit. A Post Authorization Change report was completed in June 1998 and reauthorization was requested. The project was reauthorized by WRDA 99 at a total cost of $17,039,000, Then in March 1999 the Nebraska Congressional delegation requested that the Corps immediately proceed with the processing and signing of the PCA for the project before the major non-federal funding source reallocated its funds to other projects. In April 1999 a meeting was held between the Corps, the local sponsors, and the Nebraska Natural Resources Commission to discuss the status of the project and the commitment by the sponsors and the federal government to proceed with the project. The conclusion of the meeting was that the Nebraska Natural Resources Commission would continue to provide funding for the project if the sponsor and the Corps could show that the project was proceeding. In a Sponsor's letter dated 4 May 1999, the sponsor indicated that they intend to proceed with the construction of bridges at the discretion of the local government and that bridges be removed from the project and treated as part of the without project condition. This was agreed to by the Corps 9 June 1999. The total estimated project cost of $12,719,000 reflects this agreement.


WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
NEBRASKA
PROJECT LOCATION
VICINITY MAP
N
Grand Island
WARM SLOUGH
WOOD RIVER
Diversion Channel
Mitigation Area
FLOW
FLOW
Railroad Bridge Relocation
PLATTE RIVER
SCALE
0
2
4
MILES
WOOD RIVER
AT GRAND ISLAND, NEBRASKA
U.S. Army Engineer District, Omaha
Northwestern Division
1 January 2003

APPROPRIATION TITLE: Construction, General (Flood Control)

PROJECT: Buford Trenton Irrigation District (Land Acquisition), North Dakota (Continuing)

LOCATION: The Buford Trenton Irrigation District (BTID) is located in the flood plain along the left (north) bank of the Missouri River near its confluence with the Yellowstone River in Williams County North Dakota. The current boundaries of the BTID begin about 10 miles west of Williston, North Dakota at the upstream end of Lake Sakakawea, and extended upstream to just above the confluence of the Missouri and Yellowstone Rivers for a total of 18 miles.

DESCRIPTION: The project is providing mitigation for construction of the Garrison Dam. The project consists of the acquisition of permanent flowage and saturation easements in the area from the main irrigation canal to the north bank of the Missouri River, located at the BTID pumping station and continuing downstream to the land referred to as the East Bottom. The project also includes land contiguous to the boundaries of the BTID that has been affected by rising ground water and the increased risk of surface flooding. Any easement acquired shall include the right, power, and privilege of the Federal government to submerge, overflow, percolate, and saturate the surface and subsurface of the lands. The easement will not allow structures for human habitation on the land. Structures not designed for human habitation may remain. The Federal government shall convey to the BTID, drainage pumps constructed by the Corps of Engineers, located within the boundaries of the District, and provide a lump-sum payment of $60,000 for all future power requirements associated with the operation of these pumps.

AUTHORIZATION: Section 336 of the Water Resources Development Act (WRDA) of 1996 (Public Law (PL) 104-303).

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

INITIAL BENEFIT-COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA: 1/

			STATUS (1 JAN 2003)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost		$ 34,000,000			
Estimated Non-Federal Cost		0	Entire Project	68	2/
Cash Contribution	$ 0				
Other Costs	$ 0				
Total Estimated Project Cost		$ 34,000,000			

1/ Based on detailed estimate used in preparation of a Real Estate Design Memorandum for the Acquisition of Flowage and Saturation Easements for Affected Lands within and Surrounding the Buford-Trenton Irrigation District submitted in April 1997.
2/ To Be Determined.

SUMMARIZED FINANCIAL DATA (continued):		ACCUM PCT. OF EST. FED COST	PHYSICAL DATA
Allocations to 30 September 2002	$ 23,030,000		Land Acquisition (Easements): 11,750 acres total
Conference Allowance for FY 2003	2/		(10,000 irrigable land &1,750 nonirrigable land)
Allocation for FY 2003	2/		
Allocations through FY 2003	2/	2/	
Allocation Requested for FY 2004	1,518,000	2/	
Programmed Balance to Complete after FY 2004	2/		
Unprogrammed Balance to Complete after FY 2004	0		

2/ To Be Determined.

JUSTIFICATION: Acquisition of easements is authorized by Act of Congress through PLs 534-78 and 104-303. PL 534-78 authorizes the operation and maintenance of the Garrison Dam Project, and PL 104-303 is WRDA of 1996. The 1996 WRDA was signed on 12 October 1996, thereby authorizing the acquisition of flowage and saturation easements over affected lands within and surrounding the BTID. The Real Estate Design Memorandum (REDM) was conditionally approved on 21 May 1997. Additional information as to availability of replacement housing required by PL 91-646, and clarification of cemetery relocations was provided 12 September 1997 and acknowledgment as to its adequacy was received on 17 September 1997.

FISCAL YEAR 2004: The requested amount of $1,518,000 will be applied as follows:

Easement Acquisition and Associated Costs	$ 1,453,000
Project Management activities	65,000
Total	$ 1,518,000

NON-FEDERAL COST: There is no requirement for a non-Federal sponsor for this project.

STATUS OF LOCAL COOPERATION: N/A

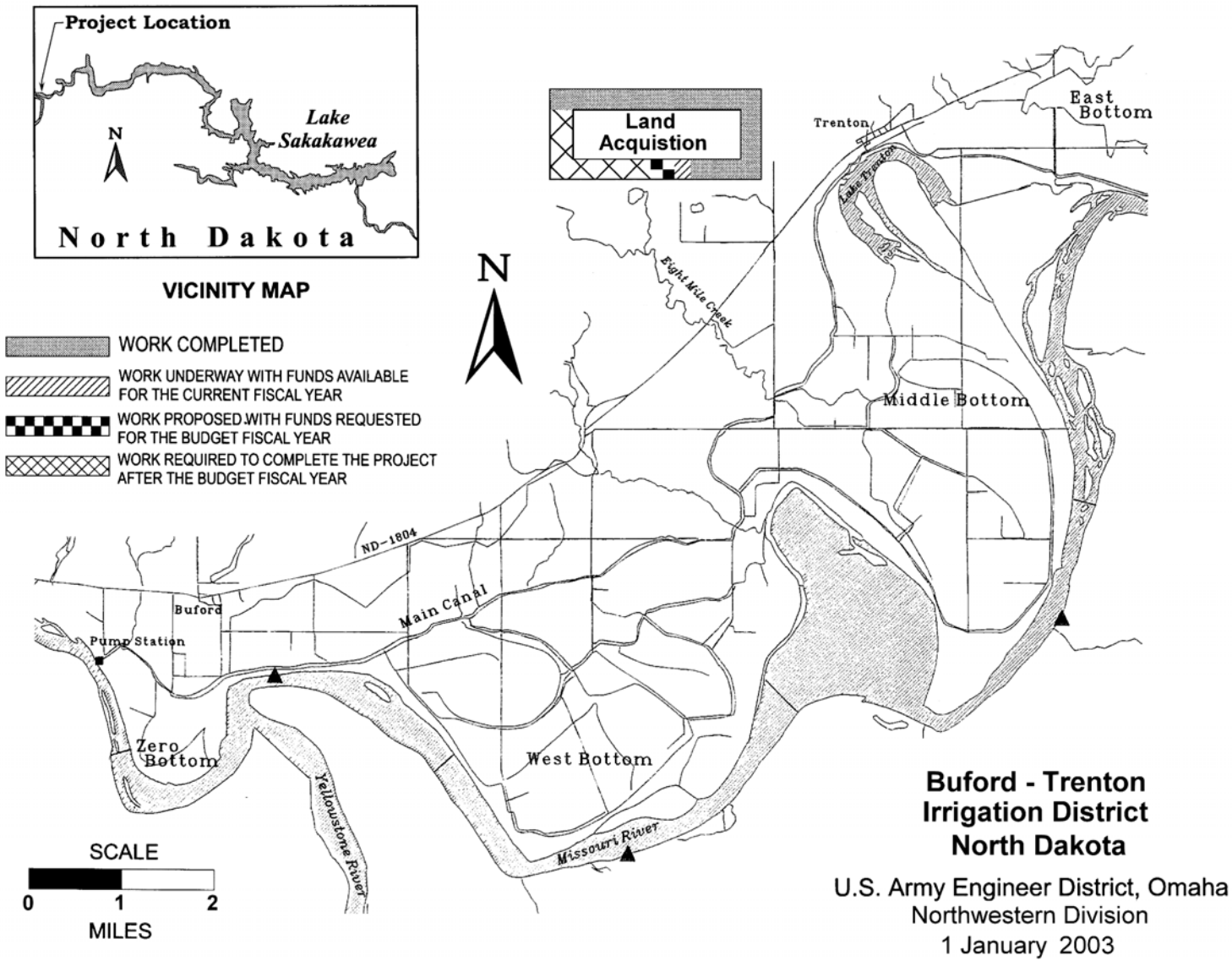
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $34,000,000 is unchanged from the latest estimate presented to Congress (FY 2003). The cost estimate reflects the limit of Federal appropriations as contained in the authorizing legislation.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The proposed acquisition of flowage and saturation easements is not a major Federal action that would significantly affect the quality of the human environment and, therefore, did not require the preparation of an environmental impact statement. An Environmental Assessment was prepared and completed in January 1994 which concluded that there were no significant impacts. The U.S. Fish and Wildlife Service concurred with the Finding of No Significant Impact.

OTHER INFORMATION: The United States Bureau of Reclamation (USBR) and Department of Agriculture (USDA) constructed the 16,800 acre BTID between 1940 and 1943. Today the BTID includes approximately 11,750 acres. The reduced size of the BTID is attributed to the construction of the Garrison Dam which was closed in 1953. East Bottom was purchased in fee by the Corps in 1958 as part of the Garrison Dam, Lake Sakakawea Project.

Of the proposed acquisition lands, approximately 10,000 acres are irrigable (primarily beet producing acres) and 1,750 acres are non-irrigable (alfalfa, grassland, grazing and marsh/waste acreage). There are approximately 70 affected landowners and 90 tracts. The BTID was divided by bends of the Missouri River into four bottoms. Zero Bottom is the smallest and is located at the upstream end of the BTID. Zero Bottom is followed downstream on the Missouri River by West, Middle and East Bottoms.

Funds to initiate construction were appropriated in Fiscal Year 1998.


Project Location
Lake Sakakawea
N
North Dakota
VICINITY MAP
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
Land Acquistion
N
Trenton
East Bottom
Lake Trenton
Eight Mile Creek
Middle Bottom
ND-1804
Main Canal
Buford
Pump Station
Zero Bottom
West Bottom
Yellowstone River
Missouri River
SCALE
0 1 2
MILES
Buford - Trenton
Irrigation District
North Dakota
U.S. Army Engineer District, Omaha
Northwestern Division
1 January 2003

APPROPRIATION TITLE: Construction, General - Reservoirs (Flood Control)

PROJECT: Elk Creek Lake, Oregon (Continuing)

LOCATION: In Jackson County, on Elk Creek, a tributary of Rogue River, at river mile 1.7 about 26.5 miles north of Medford, Oregon.

DESCRIPTION: The Elk Creek Lake Project was authorized as one of three multiple-purpose dams in the Rogue River Basin. The three dams were designed to operate as a system to reduce flooding and to accomplish additional purposes of water supply, irrigation, fish and wildlife enhancement, hydropower, and recreation. Two of the three dams are complete and operating. Authorized features of the partially completed Elk Creek Lake project include a 249-foot high, roller-compacted, concrete, gravity dam; a gate controlled concrete chute spillway; regulating outlet conduits; a diversion for power penstock; and a multiple use in-take tower attached to the upstream face of the dam. Elk Creek Dam was partially completed prior to a court injunction stopping construction. Fish passage through the partially completed facility remains an issue. Based of the selected alternative described in final EIS Supplement Number 2, filed 1 May 1991; the project would be redesigned for interim operation with no conservation pool and with fish passage.

AUTHORIZATION: 1962 Flood Control Act

REMAINING BENEFIT - REMAINING COST RATIO: The remaining benefit-remaining cost ratio is 0.769 to 1 at the authorized rate of 3 1/4%.

TOTAL BENEFIT - COST RATIO: The total benefit-cost ratio is 0.36 to 1 at 3 1/4%.

INITIAL BENEFIT - COST RATIO: The benefit-cost ratio for the fiscal year for which Congress appropriated initial construction funds (FY 1971) was 1.01 to 1 at a 3 1/4% rate and was based on project's fair share of system benefits.

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available evaluation reported in June 1983 at 1983 price levels.

SUMMARIZED FINANCIAL DATA:				STATUS	PERCENT	COMPLETION
Estimated Federal Cost		$179,400,000	1/	(1 Jan 2003)	COMPLETE	SCHEDULE
Programmed Construction	$120,476,000					
Unprogrammed Construction	58,924,000			Entire Project	62	Being Determined
Estimated Non-Federal Cost		$ 0		PHYSICAL DATA (authorized)		
Cash Contributions	$ 0			Dam: Type - Roller compacted concrete.		
Other Costs	$ 0			Height - 249 feet; length - 2,580		
				Concrete Volume - 1,100,000 cu. yds.		

1/ Reflects the cost of the selected alternative described in EIS Supplement Number 2 in 1991. Excludes deferred costs for future potential modification to operate with a conservation pool if the project is completed in the future. This estimate must be significantly updated at that time if the project is completed in the future.

SUMMARIZED FINANCIAL DATA (continued)

		ACCUM. PCT. OF EST FED COST
Total Estimated Programmed Cost 120,476,000		
Total Estimated Unprogrammed Cost 58,924,000		
Total Estimated Project Cost	179,400,000	
Allocations to 30 September 2002	110,779,000	
Conference Allowance for FY 2003	2/	
Allocation for FY 2003	2/	
Allocations through FY 2003	2/	2/
Allocation Requested for FY 2004	500,000	2/
Programmed Balance to Complete after FY 2004	2/	
Unprogrammed Balance to Complete after FY 2004	2/	

2/ To Be Determined.

Spillway: Type - Concrete gravity.
Gate Ogee Section: Design discharge- 68,400 cfs,
Gates - 3 (33 feet x 34 feet) tainter.
Lands and Damages: Acres - 3,570
Land Use: Irrigated - 130 acres;
Pasture - 182 acres; Wooded - 3,151 acres (of which 841 acres are Government owned); Lesser Interests- 67 acres; Building Sites - 40 acres
Relocations: County Road - 7.9 miles
Power and Telephone lines - 15 miles, Cemetery Reservoir

Capacity Total storage at elev 1,726 - 101,000 acre feet
Usable Storage - 95,000 acre feet; Flood Control Storage (elev 1726- 1665) - 60,000 acre feet Conservation Storage (elev 1665 (1581) - 35,000 acre feet; Inactive Storage (elev 1581-1500) - 6,000 acre feet.

JUSTIFICATION: Elk Creek Lake could be operated without conservation storage on an interim basis together with Lost Creek and Applegate Lakes as the three-dam Rogue River Basin system to provide flood control. The project would control run-off from about 132-square miles upstream from Elk Creek site. The flood problems occur principally in discontinuous areas in the 50-mile reach of the Rogue River from the junction of Elk Creek downstream to about ten miles past Grants Pass and in scattered areas in the lower 100-mile reach of the Rogue River. The major flood plain comprises some 7,400 acres of hay, alfalfa, pasture orchards (peaches, pears), and hops and affects a population of 14,560. Damages from past floods include agricultural crop losses and land damage due to inundation and erosion; and destruction of industrial, residential, commercial, and recreation developments. A total of 95,000 acre-feet of usable storage would be available at Elk Creek for flood control. The maximum flood that could be completely controlled at the Elk Creek site would have a peak flow of about 19,200 cubic feet per second and a frequency of occurrence of once in about 40 years. During the flood of 1964, the most severe flood since 1861, damages to the area downstream from Elk Creek and Lost Creek Lakes amounted to $13,161,000 of which about $2,350,000 would have been prevented by Elk Creek Lake. The peak stage of a flood such as that of 1964 would be reduced about 5.6 feet at Grants Pass by Lost Creek, and 7.4 feet by Lost Creek and Elk Creek Lakes combined. When there is a need for additional conservation storage in the region, engineering and environmental studies could be initiated to determine the feasibility of modifying operation of the project to include conservation storage. Annual benefits creditable to Elk Creek Lake are estimated to be $2,026,000 based on 1 October 1983 prices, considered as last added increment to the three-dam system and include the following:

Annual Benefits	
Flood Control	$ 1,883,000
Employment	143,000
Total	$ 2,026,000

FISCAL YEAR 2004: The requested amount of $500,000 will be applied as follows:

Continue caretaker activities	100,000
Initiate Long-Term Fish Passage Construction	400,000
Total	$500,000

NON-FEDERAL COST: A non-Federal sponsor for this project has not been identified at this time. In the event a sponsor agrees to enter into a Project Cooperation Agreement for municipal and industrial water supply, the sponsor will pay all costs allocated to municipal and industrial water supply and bear all costs of operation, maintenance, and replacement of municipal and industrial water supply facilities; for recreation, the sponsor will pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities; for agricultural water supply, the sponsor will pay all costs allocated to agricultural water supply and bear all costs of operation, maintenance, and replacement of agricultural water supply facilities.

STATUS OF LOCAL COOPERATION: Responsibility for repayment of irrigation costs rests with the Department of Interior pursuant to Federal Reclamation law. Responsible officials of four irrigation districts (Sams Valley, Eagle Point, Applegate Valley, and Rogue River Valley) have furnished preliminary assurances that it is the intention of each individual district to enter into a contract with the Secretary of the Interior to provide reimbursement of irrigation cost within each district's ability to repay such costs pursuant to reclamation law. Pursuant to Public Law 91-439, October 7, 1970, the project will not be operated for irrigation purposes until such time as the Secretary of the Interior makes the necessary arrangements with non-Federal interests to recover the costs, in accordance with the Federal Reclamation Law, which are allocated to the irrigation purpose. Assurances for future purchase of municipal and industrial water supply have been obtained from six communities in the valley: Medford, Grants Pass, Shady Cove, Sams Valley, Eagle Point, and Gold Hill. Phoenix, Oregon, a suburb of Medford, is currently purchasing municipal and industrial water supply storage at Lost Creek Lake.

Recreation facilities will not be scheduled until development of cost sharing agreements with local interests for construction and non-Federal operation and maintenance, consistent with projects for which recreation facilities are being constructed under provisions of the Federal Water Project Recreation Act of 1965 (PL 89-72), as amended.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $179,400,000 remains unchanged from the latest estimate submitted to Congress (FY 03).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Statement was filed with CEQ on September 17, 1971. Supplement No.1, addressing water quality effects, was filed with EPA on December 24, 1980, and a Record of Decision was filed with EPA in February 1982. An environmental assessment addressing design changes (such as roller compacted concrete instead of embankment dam) was completed on October 11, 1983. Supplemental Information Reports dated September 23, 1985 and January 14, 1986 were provided to the public; these reports described the findings of the 1983 environmental assessment and other new information that had become available since the 1980 EIS Supplement. Another EIS supplement has been prepared as a result of litigation; this Supplement was completed and filed with the EPA on May 1, 1991. A Record of Decision, selecting the no conservation pool as the interim operating alternative, was signed on January 24, 1992.

OTHER INFORMATION: Background: Funds to initiate preconstruction planning were appropriated in FY 1965, and for construction in FY 1971. Construction was deferred in FY 1977 due to a lack of state support. Following significant review, evaluation, and a public hearing, the Water Policy Review Board reversed its position and in April 1981 voted to support Elk Creek. Funds were appropriated in FY 1982 and FY 1983 to update and continue project design, plans, and specifications. Funds were appropriated in FY 1985 to resume construction. After initiation of construction, an injunction was placed against completion of the project and additional analysis under National Environmental Policy Act (NEPA) was required in order to remove the injunction. Construction of the project was terminated with the project at 83', one- third its design height. After completion of the final EISS #2, the Department of Justice filed a motion with the Court to remove the injunction. The Ninth Circuit Court of Appeals issued a ruling on April 21, 1995. In a decision, the Court also reversed the District Court decision that EISS #2 met the requirements of the earlier Ninth Circuit opinion and awarded attorneys fees to the plaintiffs. The case was remanded with instructions to prepare a third supplement adequately addressing all issues raised under the NEPA process.

Long Term Management Plan: Due to the Ninth Circuit Court of Appeals decision and the current Federal budgetary climate, the Corps does not plan to perform the environmental studies under the National Environmental Policy Act (NEPA) necessary to remove the Federal court injunction against completion of the project. Therefore, an evaluation of the requirements for long-term management of the project in its uncompleted state was required.

The Division Engineer notified the Congressional Appropriations Committees on 6 November 1995 of the Corps' intention to study options for long-term management of the project in its uncompleted state. We plan to evaluate and implement measures in a two-phase process. The first phase would provide long-term fish passage measures by removing a section of the spillway and left abutment. The second phase will evaluate and implement measures required to resolve land management, potential equipment and gravel disposition, cultural resource requirements and other issues. Temporary fish passage around the project will continue to be provided by the Department of Fish and Wildlife using Corps funds until a long-term solution is implemented.

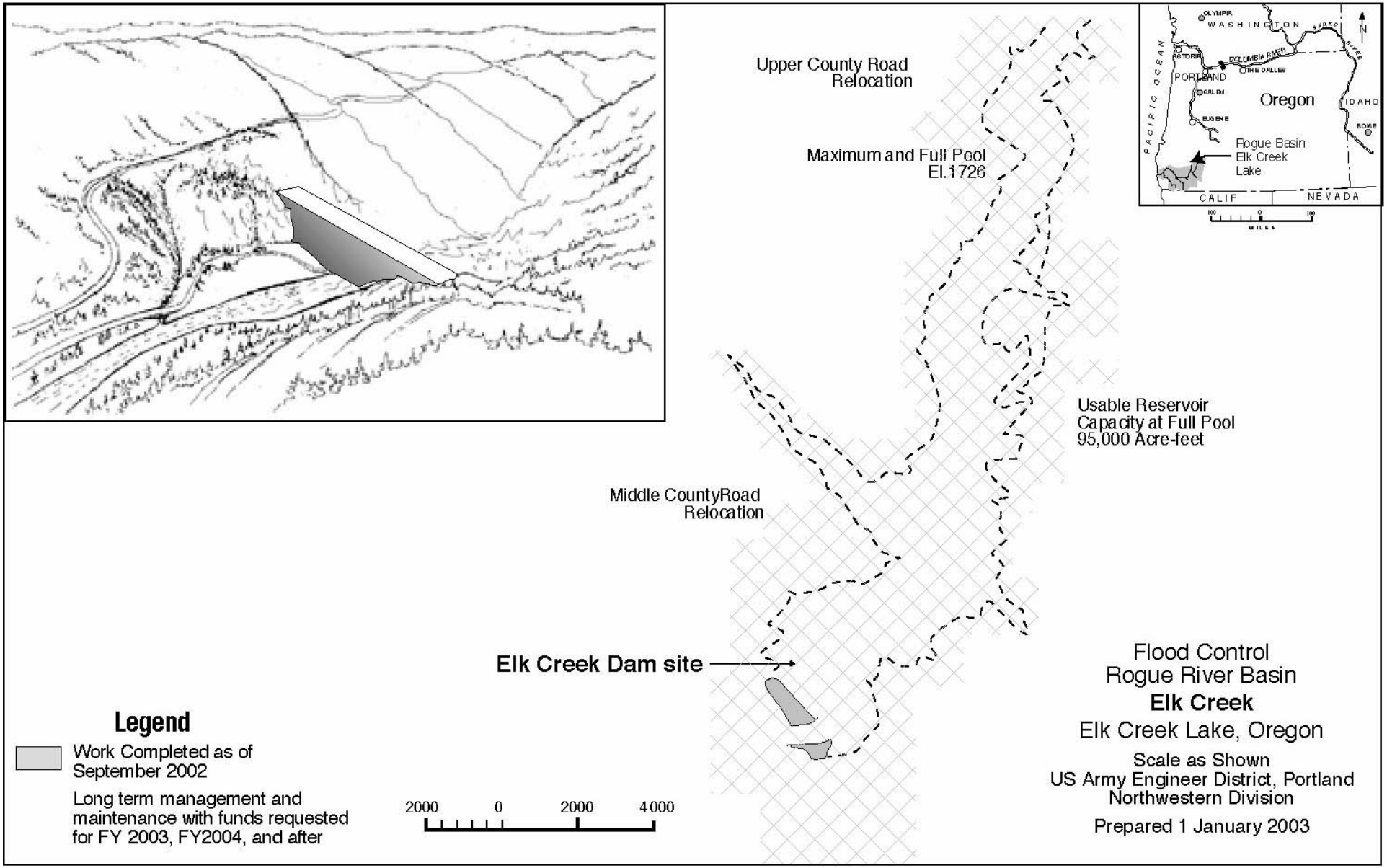
Although the Corps has no plans to perform the NEPA studies required to remove the injunction at this time, removal of a section of the spillway and left abutment will not prevent future completion of the project. Removing a section of the dam will provide passive fish passage in accordance with the language in the FY 1997 Energy and Water Development Appropriations Act. In addition, it is the most cost-effective method to provide fish passage over the long term with the project in an uncompleted state even when including the cost to replace the removed section of the dam if it is completed in the future.

Funds were not available to construct the fish passage corridor in 2000, so consultations began with the National Marine Fisheries Service (NMFS) concerning alternatives for long-term fish passage at Elk Creek under the Endangered Species Act. Four potential upstream fish passage alternatives were evaluated in the Corps biological assessment. Based on this analysis, it was determined that passage through the existing diversion tunnel and continued operation of the existing temporary trap and haul facility would result in jeopardy to the continued existence of coho salmon in Elk Creek over a ten to fifty year period. The assessment found that construction of a new trap and haul facility designed to function effectively with the uncompleted project or removal of a section of the dam to provide a fish passage corridor would not impact the continued existence of the species.

NMFS issued a biological opinion on January 2001. The opinion concurred with the Corps' assessment that passage through the existing diversion tunnel and continued operation of the existing temporary trap and haul facility would result in jeopardy. They also concur with our assessment that the fish passage corridor would not result in jeopardy, and would be the best alternative from a biological perspective. Their opinion stated that a new trap and haul facility could result in jeopardy to the continued existence of the species. The opinion stated that there is a chance the impacts of a new trap and haul facility could be reduced to an acceptable level. It stated, however, that there are significant risks associated with the design of a new facility that resulted in their jeopardy finding. Since a new

trap and haul facility is more expensive than the fish passage corridor, we have not performed detailed design to determine if these risks could be reduced to an acceptable level. The opinion recognized the need to operate the existing trap and haul facility in the interim until an acceptable, long-term solution is implemented.

Based upon concerns raised by local residents through elected officials, the ASA (CW) requested an agency review of the Corp's plan to construct the fish passage corridor. In order to allow for this agency review, plans to proceed with the fish passage corridor (notch) have been deferred. FY04 funds will be used toward implementation of a long-term fish passage solution pending completion of the agency review and potential direction from Congress in the FY 03 appropriations.


Upper County Road
Relocation
Maximum and Full Pool
El.1726
Usable Reservoir
Capacity at Full Pool
95,000 Acre-feet
Middle CountyRoad
Relocation
Elk Creek Dam site
Legend
Work Completed as of
September 2002
Long term management and
maintenance with funds requested
for FY 2003, FY2004, and after
2000 0 2000 4000
Flood Control
Rogue River Basin
Elk Creek
Elk Creek Lake, Oregon
Scale as Shown
US Army Engineer District, Portland
Northwestern Division
Prepared 1 January 2003
Oregon
Rogue Basin
Elk Creek
Lake
PORTLAND
CALIF
NEVADA
IDAHO

APPROPRIATION TITLE: Construction, General - Dam Safety Assurance

PROJECT: Mud Mountain Dam, Washington (Dam Safety and Fish Passage Facilities) (Continuing)

LOCATION: Mud Mountain Dam is located at river mile 29.6 on the White River, 6 miles upstream and southeast of Enumclaw, and 38 miles southeast of Tacoma in western Washington.

DESCRIPTION: Dam safety modifications completed to date include constructing a concrete cut-off wall in the dam's core along the centerline of the dam, raising the dam crest elevation, raising the spillway chute wall to contain the spillway discharge during the Spillway Design Flood event, reconstructing the access roads, constructing a new reservoir outlet control tower, and modifying the two existing flood control discharge tunnels. The new outlet tower is accessible at all pool levels, serves both existing tunnels, remains open during and after high water and debris flows, and will withstand the Maximum Credible Earthquake. Work (based on a Jun 99 approved supplemental design memorandum #1(SDM)) consists of modifications to the outlet works and right-bank canyon slopes, which are required to assure dam safety standards. SDM #2 is being prepared for further modifications. In addition, the existing fish capture facility six miles below the dam is being studied for renovation or replacement.

AUTHORIZATION: Flood Control Act of 1936 authorized the Mud Mountain Dam and reservoir on the White River as the main unit of the Puyallup River flood control project.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable to dam safety assurance projects.

TOTAL BENEFIT-COST RATIO: THE INITIAL BENEFIT - COST RATIO: NA.

BASIS OF BENEFIT-COST RATIO: NA

SUMMARIZED FINANCIAL DATA		Accum. Pct. of Est. Fed Cost	STATUS (1 Jan 2003)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost	$ 95,220,000		Entire Project	85	1/
Estimated Non-Federal Cost	0				
Total Estimated Project Cost	$ 95,220,000				
Allocations to 30 September 2002	$ 81,206,000				
Conference Allowance for FY 2003	1/				
Allocation for FY 2003	1/				
Allocations through FY 2003	1/	1/			
Allocation Requested for FY 2004	1,400,000	1/			
Programmed Balance to Complete after FY 2004	1/				
Unprogrammed Balance to Complete after FY 2004	0				

1/ To Be Determined

PHYSICAL DATA:

Dam: Type - Rockfill with earth core and concrete cutoff wall
Height - 425 feet above bedrock
Crest - 700 feet long
Width - 1,600 feet at base, 26 feet at crest

Spillway: Type - Uncontrolled
Previous Design Capacity - 139,000 cfs
New Constructed Capacity - 220,000 cfs

JUSTIFICATION: Mud Mountain Dam became operational in 1948, and presently provides flood damage protection for about 850 acres of land on the White River and approximately 6,200 acres on the Puyallup River, with a population of more than 80,000 people. The area is used for agriculture, residential, industrial, commercial, and transportation developments related to the expanding Port of Tacoma area. Major transportation facilities include the Burlington Northern and the Tacoma Beltline Railroads, Interstate Highway 5; and U.S. Highways 99 and 410. The immediate area has a population of more than 200,000 people. Migratory fish are live trapped at the Buckley Fish Trap and trucked and released upstream of the dam. Two of the species, Bull Trout and Puget Sound Chinook, have been listed in accordance with the Endangered Species Act.

The original spillway was inadequate for the Spillway Design Flood (SDF) based on current criteria. With an SDF, the dam would have been overtopped and would probably have failed. The resulting flood would have inundated the White and Puyallup River Valleys and could have caused flow into the adjacent Green River Valley below Auburn. Widespread flooding would have resulted in catastrophic damages with a high potential for loss of human life. Potential damages during the SDF conditions without dam failure have been estimated to be about $3.5 billion at October 2003 prices and conditions. Damages associated with a dam failure during the SDF conditions have been estimated to be about $5.3 billion at October 2003 prices and conditions. Should the dam fail, costs to repair the dam structure are estimated to be about $200 million, and yearly flood losses would occur until the dam is replaced. Record floods tested the modified dam in Nov 1995 and Feb 1996, reaching a record reservoir level of elevation 1198.

There would have been a high probability for loss of reservoir control by failure of the old reservoir outlet towers during the Maximum Credible Earthquake or plugging of the towers with debris during floods. Loss of control would have caused a rapid and uncontrolled rise in pool level resulting in unregulated flow over the spillway and loss of flood protection. Under these conditions, the integrity of the right reservoir rim could have been jeopardized by seepage resulting from the prolonged high pool. The dam withstood a significant earthquake of magnitude 6.8 on 28 Feb 2001, which released large amounts of sediment and bedload that was washed through the structure tunnels.

The modification of the two discharge tunnels was completed as part of the new outlet tower construction contract. Modification of the 23-foot tunnel substantially altered the hydraulic regimen from the original design. This was done in order to enhance the flood protection capability of the outlet works while minimizing environmental impacts to the river. Yearly inspections since completion of the construction contract (1995) have identified greater than anticipated erosion in the concrete invert of the 23-foot tunnel and in the entrance chamber portion of the outlet tower. The damage that occurred due to the on-going erosion warranted immediate remedial action and has been completed. Follow on inspections have revealed damages in other areas and SDM#2 recommends additional armoring and improvements to the outlet works. The erosion is primarily caused by the huge bedload of boulders and gravels that pass through the dam. The river source is glaciers on Mt Rainier, as the river erodes through and carries glacial moraine materials as bedload.

JUSTIFICATION (continued)
Construction of the new intake tower required the installation of a pedestrian bridge and stairway along the right bank slope. These features provide the only personnel access to the intake tower during high reservoir pools, and support the intake tower's lifeline utilities. Recent inspections and an engineering review of the slope-bridge-stairway system have revealed that this system may not remain intact after a major seismic event. Should this access system fail due to soil instability, operational control of the service and emergency gates would be lost. The resulting recommended modification work was completed in FY 2002.

FY 2003 funds are being used to address gate hydraulic system problems and other dam safety issues, and to continue studies that will lead to the renovation or replacement of the existing fish capture facilities.

FISCAL YEAR 2004: The requested amount will be applied as follows:

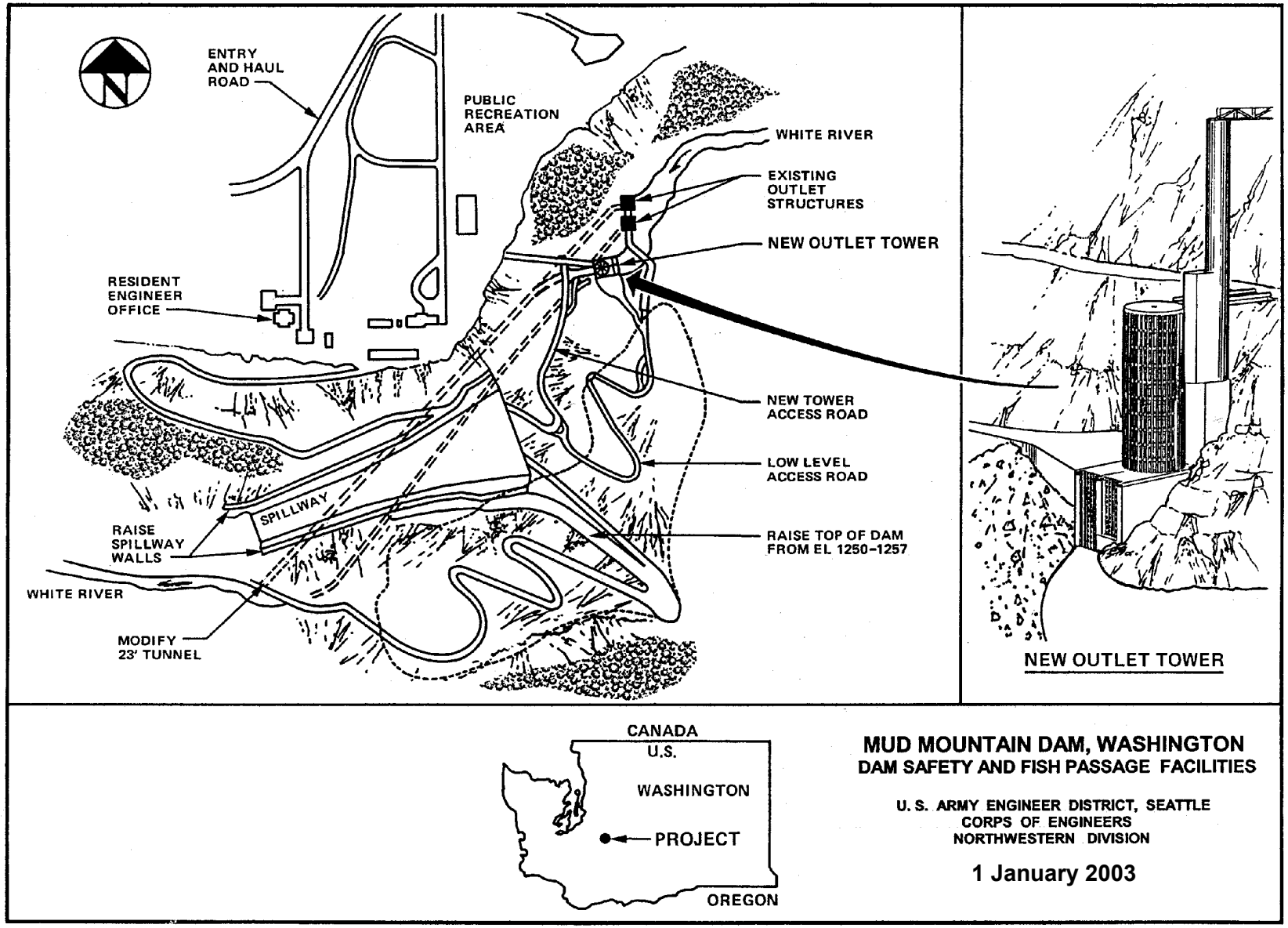
Continue Dam safety corrections	$ 550,000
Continue fish trap and passage studies	550,000
Planning, Engineering, and Design	200,000
Construction Management	100,000
Total	$ 1,400,000

NON-FEDERAL COSTS: None required
.
STATUS OF LOCAL COOPERATION: Mud Mountain Dam is an operational Federal project with no local sponsorship. Local cooperation is not required.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $95,220,000 is unchanged from the last estimate presented to Congress in FY 2003.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment was completed in June 1986 with an additional Environmental Assessment and Finding Of No Significant Impact completed in June 1999.

OTHER INFORMATION: The original project became operational in 1948 and has prevented more than $300 million in flood damages. The Dam Safety Assurance project began in 1986 and the new outlet tower first became operational in 1995. Congress added $500,000 to the project in FY 2002 for "the design of fish passage facilities" creating a new project feature.


ENTRY AND HAUL ROAD
PUBLIC RECREATION AREA
WHITE RIVER
EXISTING OUTLET STRUCTURES
NEW OUTLET TOWER
RESIDENT ENGINEER OFFICE
NEW TOWER ACCESS ROAD
LOW LEVEL ACCESS ROAD
SPILLWAY
RAISE SPILLWAY WALLS
RAISE TOP OF DAM FROM EL 1250-1257
WHITE RIVER
MODIFY 23' TUNNEL
NEW OUTLET TOWER
CANADA
U.S.
WASHINGTON
PROJECT
OREGON
MUD MOUNTAIN DAM, WASHINGTON
DAM SAFETY AND FISH PASSAGE FACILITIES
U. S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
NORTHWESTERN DIVISION
1 January 2003

APPROPRIATION TITLE: Construction, General (Multiple Purpose Power Projects)

PROJECT: Columbia River Treaty Fishing Access Sites, Oregon and Washington (Continuing)

LOCATION: Thirty-one sites located along the Columbia River on Bonneville Pool, John Day Pool, and The Dalles Pool.

DESCRIPTION: The project includes land acquisition and access facility development on Bonneville, The Dalles and John Day pools. The intent is to provide "equitable satisfaction" of the United States government's commitment to replace usual and accustomed fishing sites inundated by construction of the Bonneville Dam. In 1855, the Tribes reserved the right to access and fish at usual and accustomed sites through treaties. These rights have been upheld by the United States Supreme Court in 1905 and again in 1919. The improvements will include access roads, camping facilities, boat ramps and docks, sanitation and support facilities. Upon improvement, the land and improvements will be transferred to the U.S. Department of Interior for operation and administration on behalf of the Tribes.

AUTHORIZATION: Public Law 100-581, Title IV and Public Law 104-109.

REMAINING BENEFIT - REMAINING COST RATIO: N/A 1/

TOTAL BENEFIT-COST RATIO: N/A 1/

THE INITIAL BENEFIT - COST RATIO: N/A 1/

BASIS OF BENEFIT-COST RATIO: N/A 1/

1/ Economic justification is not required. This project is specifically authorized in PL 100-581 to mitigate Bonneville Project impact on the treaty fishing access on the Columbia River.

SUMMARIZED FINANCIAL DATA		
Estimated Appropriation Requirement	$ 88,902,000	
Future Non-Federal Reimbursement	0	
Estimated Federal Cost (Ultimate)	0	
Estimated Non-Federal Cost	0	
Total Estimated Project Cost		$ 88,902,000

STATUS (1 Jan 03)	PERCENT COMPLETE	COMPLETION SCHEDULE
Entire Project	63 %	2/

PHYSICAL DATA:
Improvements: Access roads, utilities, and camping facilities.

2/ To Be Determined

SUMMARIZED FINANCIAL DATA (continued)

			ACCUM % OF EST FED COST
Allocations to 30 September 2002	$ 49,420,000	3/	
Conference Allowance for FY 2003	4/		
Allocation for FY 2003	4/		
Allocations through FY 2003	4/		4/
Allocation Requested for FY 2004	2,900,000		4/
Programmed Balance to Complete after FY 2004	4/		
Unprogrammed Balance to Complete after FY 2004	0		

3/ Includes the $7,029,981 for transfer to Department of Interior for operation and maintenance of the completed sites.
4/ To Be Determined

JUSTIFICATION: In 1855, Indian Tribes of the Pacific Northwest entered into treaties with the United States. They ceded title to lands in the Columbia Basin and reserved the non-reservation treaty right to access the Columbia River and to take fish at "usual and accustomed" fishing places. In the 1930's, the United States constructed Bonneville Dam which inundated 37 of the treaty protected "usual and accustomed" sites. In accordance with a 1939 agreement between the War Department and the Indian Tribes, the United States was to provide 400 acres of land at six sites from Bonneville Dam to The Dalles, Oregon. Under subsequent authority the United States provided five sites totaling approximately 40 acres. In hearings held by the United States Senate Select Committee on Indian Affairs, Congress acknowledged the inequity and later enacted Public Law 100-581, Title IV - Columbia River Treaty Fishing Access Sites. The project provides "equitable satisfaction" of the United States government's commitment to replace those lands inundated by construction of the Bonneville project in accordance with the authorizing legislation.

NON-FEDERAL COSTS: Fully Federal funded.

STATUS OF LOCAL COOPERATION: N/A

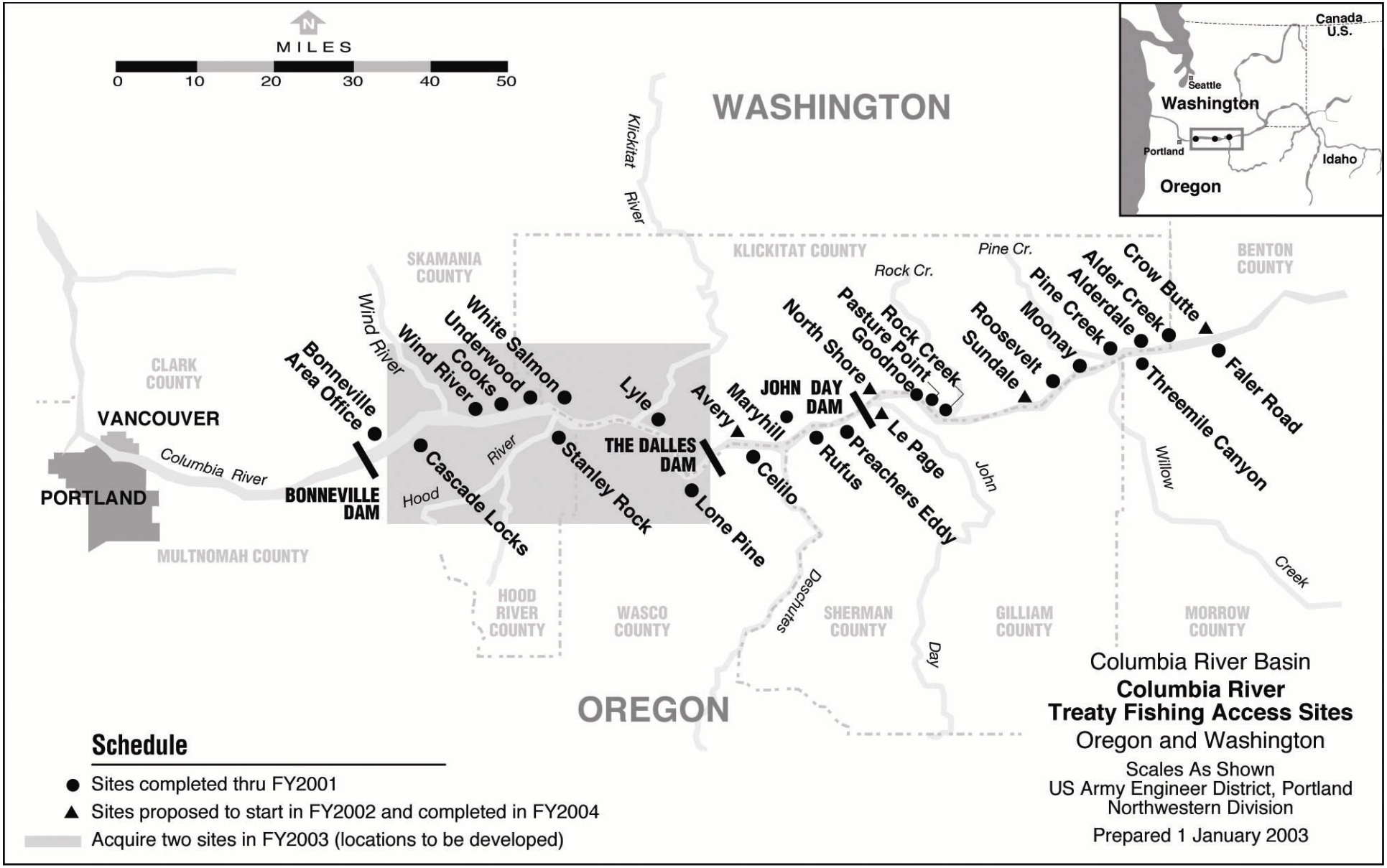
FISCAL YEAR 2004: The requested amount of $2,900,000 will be applied as follows:

Continue Lands and Damages	$ 500,000
Continue Construction	1,800,000
Continue Planning, Engineering, and Design	400,000
Continue Construction Management	200,000
Total	$ 2,900,000

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $88.902,000 is an increase of $1,952,000 from the latest estimate ($86,950,000) presented to Congress (FY 2003). This change is due to price escalation of construction features.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Draft Environmental Assessment indicates the potential environmental impacts from the development are minor. The Environmental Assessment was completed and a Finding of No Significant Impact was signed in April 1995.

OTHER INFORMATION: The four involved Indian tribes include the Nez Perce Tribe of Idaho, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Confederated Tribes of the Yakima Indian Nation. The Evaluation Report and the Post Authorization Change Report indicated that the recommended project is technically sound, cost effective, environmentally acceptable, and complies with applicable Corps of Engineers' procedures and regulations. However, the Post Authorization Report notified Congress of required changes to the boundaries or locations of 19 sites to improve constructability. Specific legislative language is included in Public Law 104-303. Also, the views of interested parties, including federal, state, and local agencies, have been considered. On 23 June 1995, a Memorandum of Understanding was signed between ASA(CW) and Bureau of Indian Affairs (BIA) for the Corps to fund, in advance, the capitalized costs for long-term O&M for all sites. Public Law 104-109 authorizes an increase of $2,000,000 in the amount to be used for land acquisition.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MILES
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WASHINGTON
OREGON
Canada
U.S.
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Klickitat River
SKAMANIA COUNTY
KLICKITAT COUNTY
BENTON COUNTY
CLARK COUNTY
MULTNOMAH COUNTY
HOOD RIVER COUNTY
WASCO COUNTY
SHERMAN COUNTY
GILLIAM COUNTY
MORROW COUNTY
VANCOUVER
PORTLAND
Columbia River
Wind River
Hood River
Pine Cr.
Rock Cr.
Deschutes
John Day
Willow Creek
Bonneville Area Office
BONNEVILLE DAM
Cascade Locks
White Salmon
Underwood
Cooks
Wind River
Stanley Rock
Lyle
THE DALLES DAM
Lone Pine
Avery
Celilo
Maryhill
JOHN DAY DAM
Rufus
North Shore
Pasture Point
Goodnoe
Rock Creek
Preachers Eddy
Le Page
Roosevelt
Sundale
Moonay
Pine Creek
Alderdale
Alder Creek
Crow Butte
Threemile Canyon
Faler Road
Schedule
Sites completed thru FY2001
Sites proposed to start in FY2002 and completed in FY2004
Acquire two sites in FY2003 (locations to be developed)
Columbia River Basin
Columbia River
Treaty Fishing Access Sites
Oregon and Washington
Scales As Shown
US Army Engineer District, Portland
Northwestern Division
Prepared 1 January 2003

APPROPRIATION TITLE: Construction General (Multiple Purpose Power Projects)

PROJECT: Flood Mitigation, Pierre, South Dakota (Continuing)

LOCATION: The project area consists of the Missouri River just downstream of Oahe Dam near Pierre and Fort Pierre, South Dakota

PROJECT DESCRIPTION: The legislation authorizes that the Secretary may acquire from willing sellers such land and property in the vicinity of Pierre, South Dakota, or flood proof or relocate such property within the project area, as the Secretary determines is adversely affected by the full wintertime Oahe Powerplant releases.

AUTHORIZATION: P.L. 105-277 112 Stat 2681 as amended by P.L. 106-224

REMAINING BENEFIT- REMAINING COST RATIO: 2.13 to 1 at 6 7/8 percent

TOTAL BENEFIT COST RATIO: 2.13 to 1 at 6 7/8 percent

INITIAL BENEFIT COST RATIO: 2.13 to 1 at 6 7/8 percent

BASIS FOR B/C RATIO: Benefits are from the Flood Mitigation Study and Project Implementation Plan for the Missouri River near Pierre, South Dakota dated 12 August 1999 at July 1999 price levels.

SUMMARIZED FINANCIAL DATA:

		ACCUM PCT OF EST FED COST
Estimated Appropriation Requirement	$ 35,000,000	
Future Non-Federal Reimbursement	13,500,000	
Estimated Federal Cost (Ultimate)	21,500,000	
Estimated Non-Federal Cost	13,500,000	
Reimbursements $13,500,000 Power		
Total Estimated Project Cost	$ 35,000,000	
Allocations to 30 September 2002	$ 21,256,000	
Conference Allowance for FY 2003	1/	
Allocation for FY 2003	1/	
Allocations through FY 2003	1/	
Allocation Requested for FY 2004	4,300,000	1/
Programmed Balance to Complete after FY 2004	1/	1/
Unprogrammed Balance to Complete after FY 2004	0	

STATUS: (1 JAN 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	72	1/

PHYSICAL DATA

Relocations: Flood Proof:

Roads - 10,338 ft	Wells - 14
Storm Drains 1,833 ft	Buy Out or Flood Proof
Sanitary Sewers - 7,029	Structures - 117
Culvert Outlets – 18	
Pumping System – 3	
Water Lines - 10,698 ft	
Electrical Lines - 12,727 ft	

1/ To Be Determined

JUSTIFICATION: Since Oahe Dam was initially put into operation in 1958, flooding in the Pierre and Fort Pierre area has been confined to low-lying lands adjacent to the river. This shallow flooding in the low-lying areas has been caused primarily by water backing up in the storm sewer system of Pierre and out into the streets, businesses and homes, most frequently in the southeast Pierre subdivisions. During the winter season, additional problems are caused by the ice cover in the Missouri River downstream from Oahe Dam which results in significantly higher stages for a given discharge than during open flow conditions. This has resulted in an increase in operation constraints on hydropower production during the winter. Additionally, sediment, primarily from the Bad River, continues to accumulate below Farm Island and has contributed to higher stages in water surface during summer and winter conditions increasing the severity and reoccurrence of the flooding problems. If no action is taken to alleviate the flooding during the winter time power generation, the present constraints to power generation will continue and gradually increase. The Oahe powerplant would be operated in a manner that would maximize power generation while avoiding flooding of lowland areas or causing elevated groundwater. Ultimately, power generation would be limited to 25 percent of capacity during the three week constraint period of highest demand in the winter.

FISCAL YEAR 2004: The requested amount of $3,800,000 will be applied as follows:

Item		Amount
Real Estate Activities	$	1,680,000
Infrastructure Construction		2,050,000
Site Clearing		15,000
Flood Proofing of Structures		500,000
Project Management and Engineering Activities		55,000
Total	$	4,300,000

NON-FEDERAL TOTAL COST: There is no requirement for a non-Federal sponsor for this project.

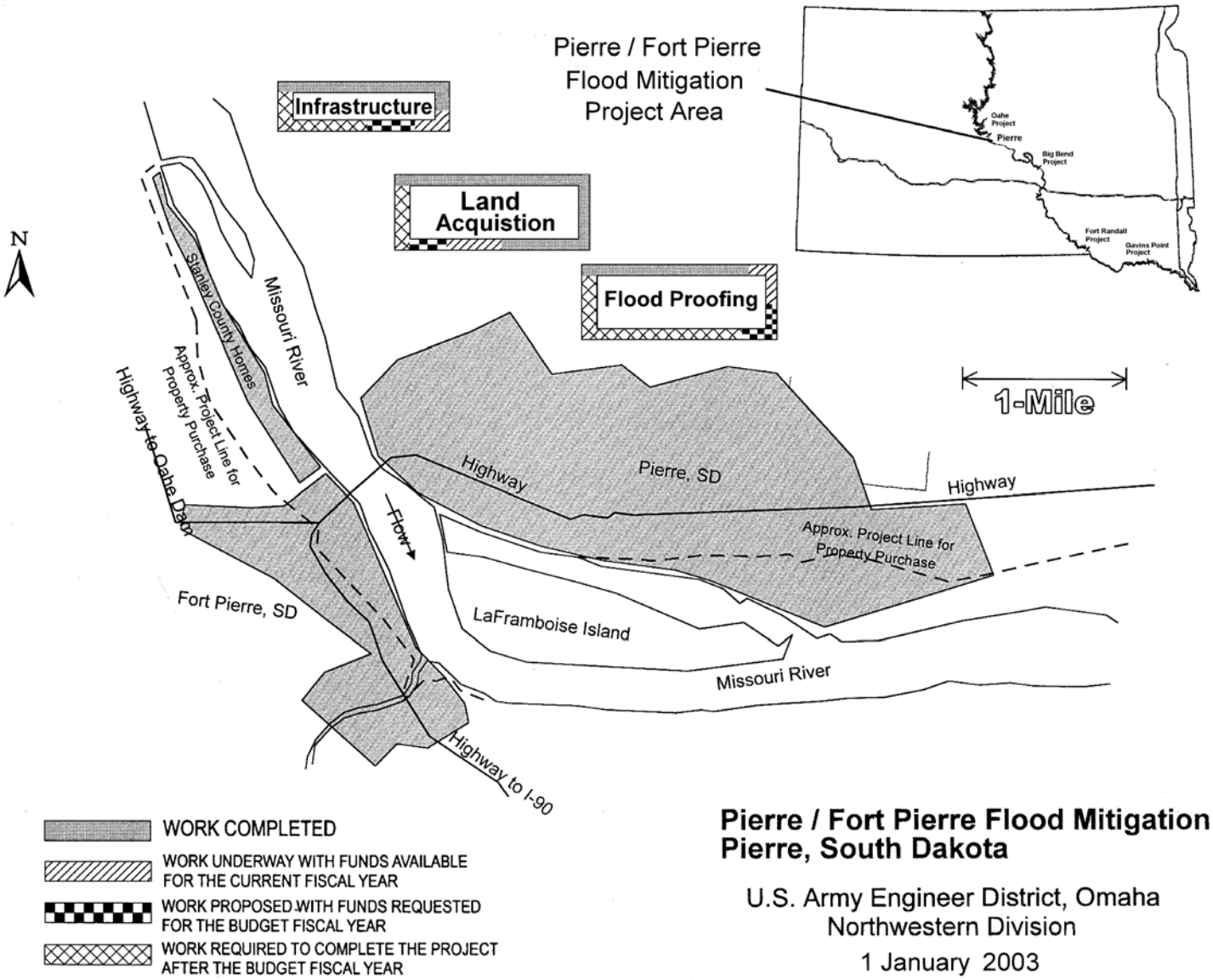
STATUS OF LOCAL COOPERATION: N/A

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $35,000,000 is unchanged from the latest estimate presented to Congress (FY 2003). The cost estimate reflects the limit of Federal appropriations as contained in the authorizing legislation.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The proposed acquisition of floodplain property is not a major Federal action that would significantly affect the quality of the human environment, and therefore does not require the preparation of an environmental impact statement.

OTHER INFORMATION: The report required by the authorizing legislation was approved by ASA(CW) on 15 October 1999. The Agricultural Risk Protection Act of 2000 directed the Secretary of the Army to amend the economic analysis to include an assumption that the Federal Government is responsible for mitigating any existing ground water flooding to the land and property described in the report. This amendment to the authorizing legislation allowed the Corps to immediately begin the buyout in accordance with an established priority list.

Mitigation costs will be allocated among the authorized purposes which caused the requirement for mitigation and cost shared to the same extent as other project costs allocated to these purposes. The project will be completely federally funded as the mitigation is for a problem caused by the Oahe Dam project. By funding the project 100 percent Federal and with the costs allocated to the existing Oahe project, 45.83 percent of the costs will be considered joint costs. When WAPA invokes the sub-allocation of 15.8 percent of power costs to future irrigation, the 45.83 percent joint use costs will actually result in a final cost share of 38.6 percent (or $13,500,000) of the $35,000,000 project cost which would be repaid by non-Federal interests.



Pierre / Fort Pierre Flood Mitigation
Pierre, South Dakota

U.S. Army Engineer District, Omaha
Northwestern Division
1 January 2003

APPROPRIATION TITLE: Construction, General - Environmental Mitigation, Restoration and Protection

PROJECT: Cheyenne River Sioux Tribe, Lower Brule Sioux Tribe, and State of South Dakota Terrestrial Wildlife Habitat Restoration - (Continuing)

LOCATION: The lands subject to Section 601 of the Water Resources Development Act of 1999 (WRDA 99) are generally Corps lands located in South Dakota that were acquired by the Secretary of the Army for the implementation of the Pick-Sloan Missouri River Basin program. Land to be transferred to the State is Corps land that is located above the top of the exclusive flood pool of the Oahe, Big Bend, Fort Randall and Gavins Point projects and located outside the external boundaries of a reservation of an Indian Tribe. Lands to be transferred to the Secretary of the Interior are those lands located above the top of the exclusive flood pool of the Big Bend and Oahe projects and located within the external boundaries of the reservation of the Cheyenne River Sioux Tribe and the Lower Brule Sioux Tribe.

DESCRIPTION: Review and submittal to Congress of wildlife habitat restoration plans developed by the State and Indian Tribes. Accomplish the transfer of Corps of Engineers land to State of South Dakota and transfer of Corps of Engineers land to Department of Interior (DOI) for the two Indian Tribes.

AUTHORIZATION: P.L. 106-53 WRDA 99 as amended by P.L. 106-541 WRDA 2000.

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

INITIAL BENEFIT-COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA:

			ACCUM PCT OF EST FED COST	STATUS: (1 JAN 2003)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$102,858,000				
Estimated Non-Federal Cost		0		Entire Project	14	1/
Cash Contribution	$ 0			PHYSICAL DATA		
Other Costs	$ 0			Land - Estimated Acres to be transferred		133,150
Total Estimated Project Cost		$102,858,000		(to the State of South Dakota		91,000 Acres)
				(to the Cheyenne River Tribe		33,300 Acres)
				(to the Lower Brule Tribe		8,850 Acres)

1/ To Be Determined

SUMMARIZED FINANCIAL DATA (continued)

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2002	$14,527,000	
Conference Allowance for FY 2003	1/	
Allocation for FY 2003	1/	
Allocations through FY 2003	1/	1/
Allocation Requested for FY 2004	2,800,000	1/
Programmed Balance to Complete after FY 2004	1/	
Unprogrammed Balance to Complete after FY 2004	0	

PHYSICAL DATA (continued)

Land - Estimated Acres to remain with the Corps of Engineers	19,400
Recreation Sites to be transferred	81
(to the State of South Dakota	64 sites)
(to the Cheyenne River Tribe	6 sites)
(to the Lower Brule Tribe	11 sites)
Number of Significant Cultural Sites Involved	388

1/ To Be Determined

JUSTIFICATION: Transfer of Federal lands to the State and DOI for the two Indian Tribes as authorized by Section 601 of WRDA 99 for the restoration of wildlife stewardship lands.

FISCAL YEAR 2004: The requested amount of $2,800,000 will be applied as follows:

Item	Amount
Fish and Wildlife Activities	$2,340,000
Project Coordination Costs	400,000
Engineering and Design Activities	10,000
Supervision and Administration	50,000
Total	$ 2,800,000

NON-FEDERAL TOTAL COST: There is no requirement for a non-Federal sponsor for this project.

STATUS OF LOCAL COOPERATION: N/A

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $102,858,000 is a decrease of $4,510,000 from the latest estimate ($107,368,000) presented to Congress (Fiscal Year 2003). This change includes the following amounts:

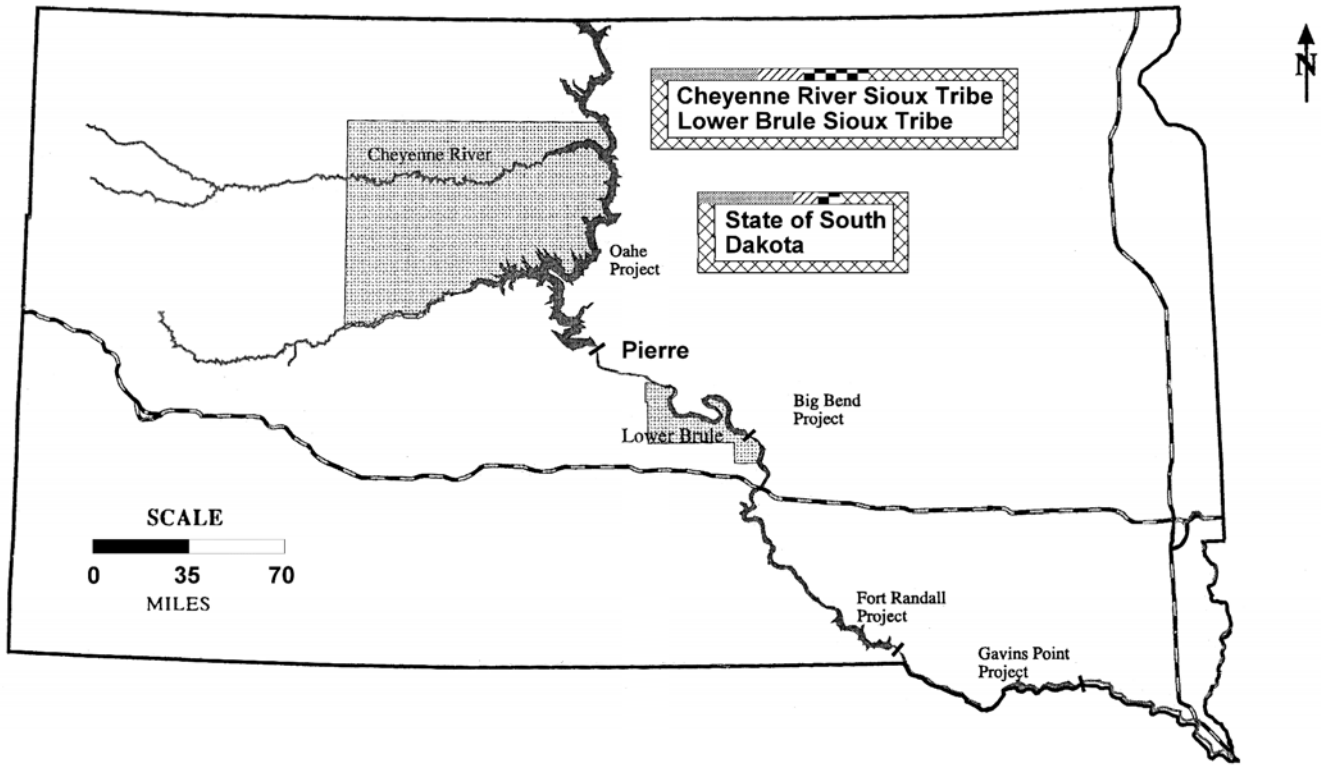
Item	Amount
Price Escalation on Construction Features and Changes in Projected Inflation Rates	$ -4,722,200
Other Estimating Adjustments	212,200
	$ -4,510,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: N/A

OTHER INFORMATION: In accordance with WRDA 99, trust funds to be established (which will total $165,400,000) by the Treasury of the United States for the State of South Dakota, Cheyenne River Sioux Tribe, and Lower Brule Sioux Tribe, will allow interest to be used for implementation of the restoration program. The State of South Dakota and the two Tribes cannot use interest from trust fund established for implementation of the restoration program until fully capitalized and plans for restoration have been transmitted to Congress through the Secretary of the Army. The plans developed by the State and two Tribes have been transmitted to Congress. Interest from the capitalized fund will be used by the State and Tribes for recreation and wildlife mitigation. State and Tribes must first fully fund annually scheduled work described in restoration plans submitted to Congress. Remaining annual funds are to be used to protect cultural resource sites and all costs associated with management and development of recreation areas.

Technical amendments in WRDA 2000 provides modification to the original legislation and requires cultural resources site stabilization and stewardship contracts with the State and Tribes be funded by O&M funds. The original intent was to fund these with Construction General monies and these items were not in the FY 2003 O&M budget request.

During the period that it takes the Corps to accomplish the land transfers, the Corps must fund wildlife habitat restoration programs equal to the amount funded in prior year. The Corps must also develop a map of lands needed for project operations for 20 years from the date of the act and dams and related structures that are to be retained by the Secretary of the Army. Normal Corps activities continue until transfer including implementation of the State and Tribe plans for restoration of terrestrial wildlife habitat during transition period. No transfer of land shall occur until a USGS study determines that the transfer of land will not significantly reduce the amount of water flow to the downstream States. The Army has determined, based on the completed USGS study, that the land transfer would not have a significant effect on downstream flows. The Corps loses authority to manage recreation and wildlife habitat (other than through reservoir regulation) and retains authority to operate project consistent with project authorities. The Corps is not responsible for any damages to transferred lands caused by flooding, sloughing, erosion or other changes caused by operations of any project. The Corps is not relieved from complying with NEPA. Implementation satisfies mitigation requirements with the State of South Dakota and the Cheyenne River and Lower Brule Tribes. Silent on remaining responsibilities for Crow Creek Tribes and Standing Rock Sioux Tribe.



WORK COMPLETED

WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR

WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR

WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR

Cheyenne River Sioux Tribe, Lower Brule Sioux Tribe, and State of South Dakota Terrestrial Wildlife Habitat Restoration

U.S. Army Engineer District, Omaha
Northwestern Division
1 January 2003

APPROPRIATION TITLE: Construction General – Environmental Restoration

PROJECT: Chief Joseph Dam Dissolved Gas Abatement, Washington (New)

LOCATION: Chief Joseph Dam is located on the Columbia River, 545 miles upstream of the mouth, 51 miles downstream of Grand Coulee Dam, 1-1/2 miles upstream from the town of Bridgeport, Washington, between Douglas and Okanogan Counties.

DESCRIPTION: Work consists of constructing flow deflectors in spillway. The project will require changes in operational measures to incorporate dissolved gas abatement measures. Work is in accordance with the 2000 NMFS Biological Opinion on Federal Columbia River Power System (FCRPS) operations which states: "The Corps shall continue to develop and construct spillway deflectors at Chief Joseph Dam by 2004 to minimize total dissolved gas levels associated with system spill."

AUTHORIZATION: 1946 River and Harbor Act as modified by P.L. 94–587 and P.L. 95–26; and the 1958 Fish and Wildlife Coordination Act.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable. Environmental restoration costs are not subject to formal benefit calculations.

TOTAL BENEFIT – COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA:				STATUS 1 Jan 2003	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Total Appropriation Requirement			$ 32,900,000	Entire Project	0	1/
Future Non-Federal Reimbursement (BPA)			32,900,000			
Estimated Federal Cost (Ultimate)			0			
Estimated Non-Federal Cost			32,900,000			
Reimbursements		32,900,000				
Power	32,900,000					
Total Estimated Project Cost			32,900,000			

1/ To Be Determined

SUMMARIZED FINANCIAL DATA: continued

		Accum.
Allocations to 30 September 2002	0	Pct. Of Est.
Conference Allowance for FY 2003	1/	Fed. Cost.
Allocation for FY 2003	1/	
Allocations through FY 2003	1/	1/
Allocation Requested for FY2004	900,000	1/
Programmed Balanced to Complete After FY 2004	1/	
Unprogrammed Balance to Complete After FY 2004	0	

1/ To Be Determined

PHYSICAL DATA:

Existing Project -
Concrete gravity dam 240 feet high
Powerhouse has 27 generators

Reservoir Capacity –
Gross capacity, 593,000 acre-feet
Power pondage, 38,800 acre-feet

Power Installation	Power Plant Nameplate Capacity Rating	Power Plant Maximum Capacity Rating
Original Units 1-16	1,024,000 KW	N/A
Additional 11 units	1,045,000 KW	1,201,750 KW
Uprate Units 1-16	204,160 KW	1,412,384 KW
Total Units 1-27	2,273,160 KW	2,614,134 KW (Maximum power plant output is limited to 2,525,000 KW by hydraulic factors.)

JUSTIFICATION: In the past few years, the combination of higher than average flow conditions requiring flood control spills and Endangered Species Act (ESA) efforts requiring spill for fish passage have magnified the dissolved gas supersaturation problem throughout the Columbia River system. Dissolved gas is toxic to fish, producing symptoms similar to “the bends” in humans, and is frequently fatal. Current state and federal water quality standards for total dissolved gas (TDG) concentrations have frequently been exceeded downstream of Chief Joseph Dam. In particular, very high levels of TDG supersaturation were observed below Chief Joseph and Grand Coulee Dams in 1996, 1997 and 2002. High levels of TDG produced at one dam tend to persist far downstream. Chief Joseph Dam is the upper boundary for the geographic range of the Upper Columbia River Evolutionary Significant Unit, where Steelhead (August 18, 1997) and Spring Chinook (March 16, 1999) have been listed as endangered.

FISCAL YEAR 2004: The requested amount will be applied as follows:

Planning, Engineering and Design	$ 800,000
Initiate Construction Contract	100,000
Total	$ 900,000

NON-FEDERAL COST: This project is a part of the Federal Columbia River Power System. Bonneville Power Administration (BPA), the Pacific Northwest Federal power marketing agency, is required to establish system rate levels adequate to recover all capital investment costs for Federal generating projects (including Corps generating projects) within a 50-year period and to repay annual OM&R and interest expenses. Costs allocated to power, presently estimated at $32,900,000, are reimbursable. BPA submits annual financial statements to Congress on repayment status and periodically recommends rate adjustments for meeting repayment obligations.

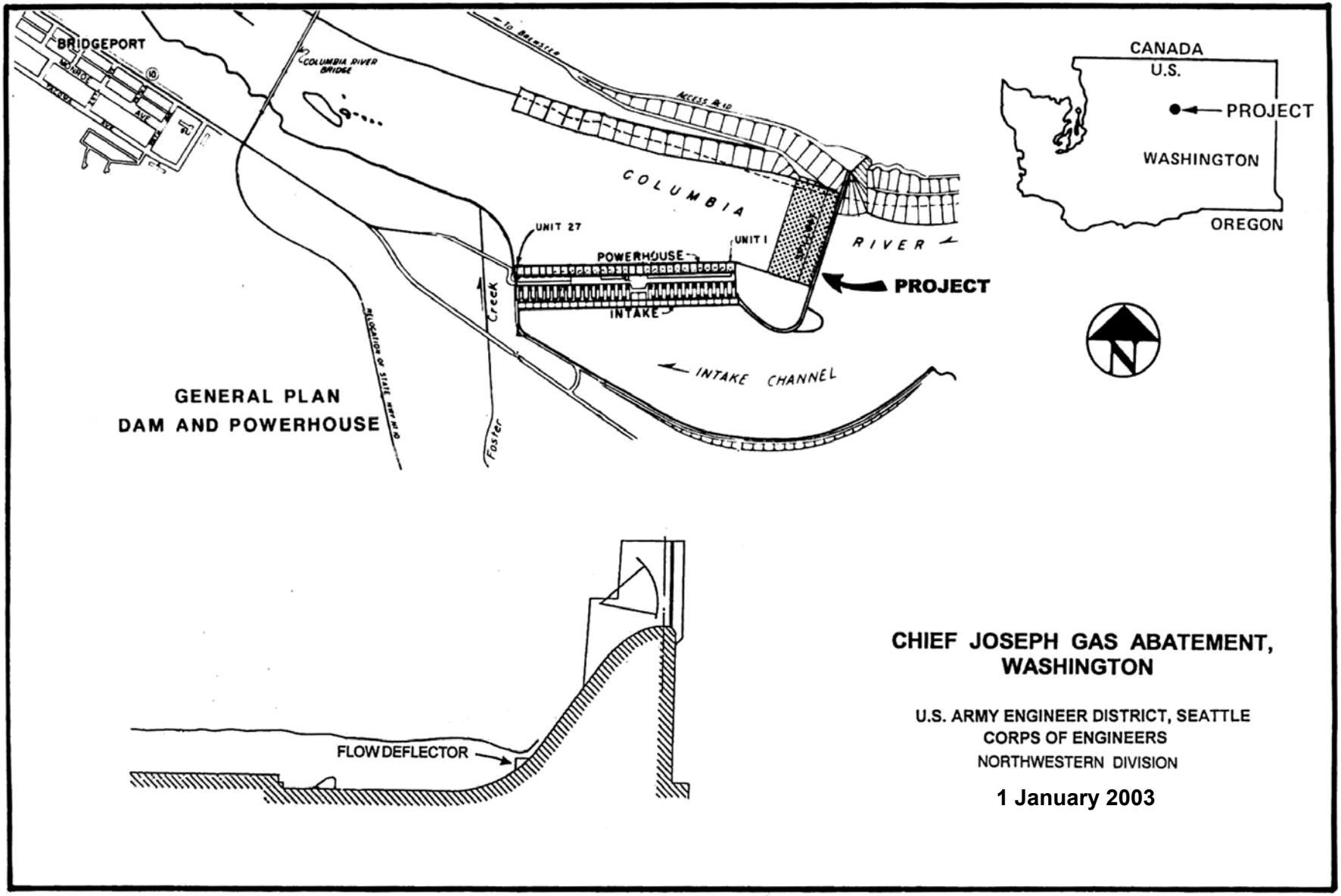
STATUS OF LOCAL COOPERATION: None required. Chief Joseph Dam is an operational Federal project with no local sponsorship. The dissolved gas abatement work is strongly supported by the downstream power producing agencies, BPA, NMFS, USFWS, and other resource agencies.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $32,900,000 is the initial estimate presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Impact Statement for the original project was filed with the Council of Environmental Quality on 2 February 1972. A Supplemental Environmental Impact Statement for the additional units was filed on 17 July 1975. Environmental restoration is generally identified by existing Environmental Impact Statements. An EA/FONSI has been completed for the gas abatement project and was signed on 5 December 2000, along with a Planning Aid Letter from USFWS. Additional environmental documentation pursuant to NEPA will be accomplished as necessary to cover the construction of the spillway flow deflectors. Consultations with National Marine Fisheries Service and US Fish & Wildlife Service will be held and biological assessments prepared as necessary to conform with requirements of the Endangered Species Act (ESA).

OTHER INFORMATION: $1,440,000 in O&M funds were expended from FY 1998 through FY 2000 to investigate alternatives to lower the Total Dissolved Gasses, and to prepare the General Reevaluation Report which was approved on 12 September 2000. These costs are not part of the project.

The project is listed as “Action 136” in the NMFS 2000 Biological Opinion and will be reviewed in the 3-year checkpoint evaluation of the Biological-Opinion in 2003.


BRIDGEPORT
COLUMBIA RIVER BRIDGE
TO BREWSTER
ACCESS TO 10
COLUMBIA
RIVER
UNIT 27
UNIT 1
POWERHOUSE
INTAKE
PROJECT
Foster Creek
RELOCATION OF STATE HWY NO 10
INTAKE CHANNEL
GENERAL PLAN
DAM AND POWERHOUSE
CANADA
U.S.
PROJECT
WASHINGTON
OREGON
N
FLOW DEFLECTOR
CHIEF JOSEPH GAS ABATEMENT,
WASHINGTON
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
NORTHWESTERN DIVISION
1 January 2003

APPROPRIATION TITLE: Construction, General - Multiple Purpose Power

PROJECT: Columbia River Fish Mitigation, Washington, Oregon, & Idaho (Continuing)

LOCATION: Lower Columbia and Snake Rivers.

DESCRIPTION: The mitigation consists of: (1) Adult and juvenile fish bypass improvements at Lower Granite, Little Goose, Lower Monumental, and Ice Harbor on the Snake River; McNary, John Day, The Dalles, and Bonneville on the Columbia River, avian predation controls, and salmon survival research and development in the Lower Columbia River estuary and near-ocean environments, (2) A mitigation analysis, prepared in cooperation with regional interests, to evaluate additional measures to increase fish survival in the Columbia and Snake Rivers. The mitigation analysis provides the analytical process for consideration and implementation of Federal actions necessary to support regional initiatives and Federal salmon and resident fish ESA requirements.

AUTHORIZATION: 1933 Federal Emergency Administration of Public Works;1935, 1945 and 1950 River and Harbor Acts; 1937 Bonneville Project Act; the 1950 Flood Control Act, and WRDA 1999, Section 582.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable 1/

TOTAL BENEFIT-COST RATIO: Not applicable 1/

INITIAL BENEFIT-COST RATIO: Not applicable 1/

1/ Mitigation is incrementally justified through consideration of costs and non-monetary and monetary benefits; accordingly, a benefit-cost ratio is not computed.

BASIS OF BENEFIT-COST RATIO: Not applicable 1/

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 03)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Total Appropriation Requirement (Corps of Engineers)	$ 1,506,330,000	Entire Project	51	Being Determined
Estimated Other Federal Costs (Bonneville Power Administration)	9,670,000			

SUMMARIZED FINANCIAL DATA (Continued)

			ACCUM % OF EST FED COST
Total Initial Federal Cost		1,516,000,000	
Future Non-Federal Reimbursement		1,300,400,000	2/
Estimated Federal Cost (Ultimate)		215,600,000	
Estimated Non Federal Cost		$1,300,400,000	
Cash Contributions	0		
Other Costs	0		
Reimbursements	$1,300,400,000		
Power	$1,300,400,000		
Total Estimated Project Cost		$1,516,000,000	
Allocations to 30 September 2002		$ 778,036,000	
Conference Allowance for FY 2003		3/	
Allocation for FY 2003		3/	
Allocation through FY 2003		3/	3/
Allocation requested for FY 2004		95,000,000	3/
Programmed Balance to Complete after FY 2004		3/	
Unprogrammed Balance to Complete after FY 2004		0	

2/ Allocation for actual reimbursement by the Bonneville Power Administration is made as each element is placed in service.
3/ To Be Determined

PHYSICAL DATA

Lower Granite Lock & Dam
- Extended Screens Including
- Fish Loading Improvements
- Barge Moorage Expansion
- Fish Transportation Barges
- Bypass Channel Improvement Facilities
- Surface Bypass Facilities

McNary Lock & Dam
- Extended Screens
- Holding & Loading Improvements
- Intake Gate Raise
- Adult P.I.T. tag facilities

Bonneville Lock and Dam
- Bypass Channel Improvements Including:
- Outfall Relocation
- Independent Station Service
- Juvenile Fish Monitoring Facilities
- Surface Bypass Facilities
- Aux. Water Supply modifications
- 2nd PH Juvenile Gudiance Improvements
- Adult P.I.T. tag facilities

PHYSICAL DATA (Continued)

Little Goose Lock & Dam
- Aux Water Supply-Fish Ladder
- Extended Screens
- Holding and Loading Facility
- Surface Bypass Facilities

Lower Monumental Lock & Dam
- Screened Bypass
- Holding and Loading Facility
- Surface Bypass Facilities
- Aux Water Supply-Fish Ladder
- Extended Screens
- Flow Deflectors

Ice Harbor Lock & Dam
- Screened Bypass
- Aux Water Supply-Fish Ladder
- Spillway Flow Deflectors for Gas Abatement
- Surface Bypass Facilities
- Adult P.I.T Tag Facilities

John Day Lock & Dam
- Juvenile Fish Monitoring Facilities
- Spillway Flow Deflectors for Gas Abatement
- Extended Screens

The Dalles Lock & Dam
- Extended Screen Bypass
- Emergency Aux Water Supply
- Adult Ladder Dewater System
- Sluiceway Outfall Relocations
- Spillway Improvements

Lower Columbia River estuary
- Avian Predation Controls
- Estuary Studies

Mitigation Analysis
- Gas Abatement
- Surface Collection & Bypass
- John Day Fall Chinook Hatchery
- Adult Passage
- Turbine Passage
- Spill/project Passage Efficiency and Survival Studies
- Delayed & Multiple Bypass Mortality Studies
- Temperature Impacts

JUSTIFICATION: Columbia River Fish Mitigation provides mitigation for the impact of Corps' dams on migrating salmon. Completed and scheduled mitigation measures are based on analyses completed to date. Mitigation measures are being considered as a result of the Northwest Power Planning Council's regional rebuilding efforts for upriver salmon stocks, the NMFS listing of salmon as threatened/endangered, the NMFS Biological Opinions on operation of the Federal Columbia River Power System (FCRPS) issued on March 2, 1995, May 14, 1998 and December 21, 2000 and the USFWS Biological Opinion of December 2000 for listed resident fish. The current scope of this project has been adjusted to be in accord with biological opinions. The Mitigation Analysis, begun in FY 1991, is contributing to a regionally cooperative process for analyzing potential new measures.

In response to Section 582 of WRDA 1999 and in recognition of the effects of the hydropower system operations and other Corps activities on the Columbia River estuary and concomitant impacts on salmonids, efforts began in FY 2001 to address habitat and avian predation issues in the estuary.

FISCAL YEAR 2004: The requested amount of $95,000,000 will be applied on major measures as follows (Specific amounts are tentative. See "Potential Changes" below):

Lower Granite	$ 0
Little Goose Flow Deflectors Adult PIT Detectors	$ 5,600,000
Lower Monumental Outfall Relocation Flow Deflectors	$1,800,000
Ice Harbor Removable Spillway Weir	$10,000,000
McNary Forebay Debris Control	$ 1,000,000
John Day Extended Length Screen Flow Deflectors Adult PIT detectors	$8,000,000
The Dalles Spillway Modifications	$7,300,000
Bonneville B2 Surface bypass (Corner Collectors) Adult Passage Improvements B2 FGE Improvements	$11,300,000
Lower Columbia River estuary Avian predation controls Estuary Studies	$2,600,000
Mitigation Analysis Studies: Surface Bypass at Lower Granite; Lamprey Evaluation, Biological Studies at John Day; Surface Bypass Spillway improvements and Survival Studies at The Dalles; Adult Fall-back and Survival Studies at Bonneville; Adult Passage, Survival improvements at Lower Monumental, Delayed mortality, Multiple bypass mortality and Turbine Survival Studies	$47,400,000
Total	$ 95,000,000

NON-FEDERAL COST: Costs eventually determined to be allocable to power are reimbursable. The dams being modified and analyzed are a part of the Federal Columbia River Power System (FCRPS). Bonneville Power Administration (BPA), the Federal Power Marketing Agency, establishes system rate levels adequate to recover all capital investment costs for generating projects (including Corps generating projects) within a 50-year period and to repay annual OM&R and interest expenses. BPA submits an annual financial statement to Congress, as required by law, on repayment and periodically recommends rate adjustments as required for meeting repayment obligations.

STATUS OF LOCAL COOPERATION: None required.

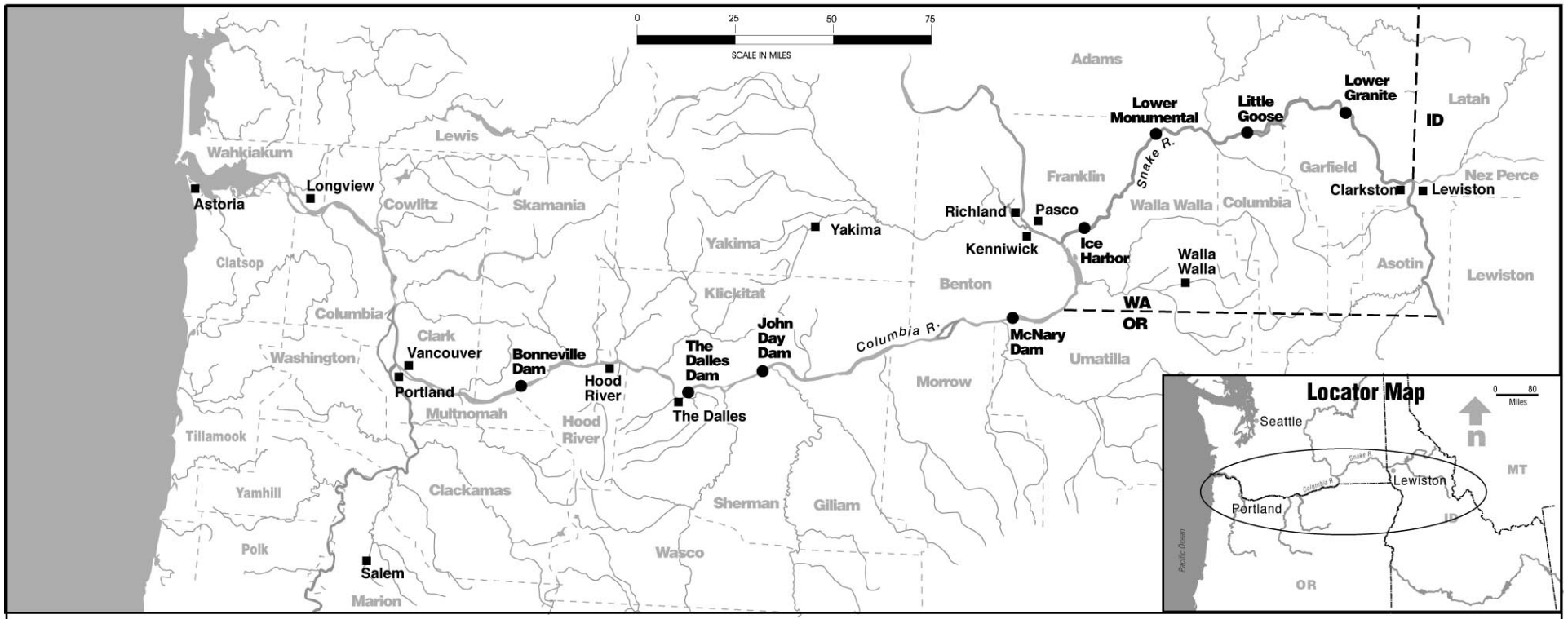
COMPARISON OF FEDERAL COST ESTIMATE: The current Initial Federal cost estimate of $1,516,000,000 remains unchanged from the last estimate presented to Congress (Fiscal Year 2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Mitigation construction is generally covered by existing environmental impact statements. Additional Environmental documentation pursuant to NEPA will be accomplished as necessary. Consultations with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) will be held and biological assessments prepared as necessary to conform with requirements of NEPA and of the Endangered Species Act (ESA).

OTHER INFORMATION: Funds to initiate construction were appropriated in Fiscal Year 1988.

Scheduled Completion Dates: The project completion date is being determined.

Potential Changes:
Salmon rebuilding initiatives for Corps implementation have been adopted by the Northwest Power Planning Council as part of the amended Columbia River Basin Fish and Wildlife Program and are required by the NMFS and USFWS Biological Opinions. In response to the 2000 Biological Opinions, the Corps, BPA, and Bureau of Reclamation have developed one-year and five year implementation plans**.** The Council, NMFS and USFWS emphasize adaptive management – incorporating changes based on new research, monitoring and regional prioritization decisions. This adaptive management approach is regionally recognized and accepted.



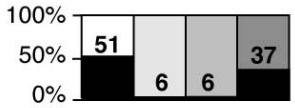
Schedule

100% 50% 0% Work completed as of FY2002

100% 50% 0% Work proposed with funds available for FY2003

100% 50% 0% Work proposed with funds requested for FY2004

100% 50% 0% Work required to complete project after FY2004



Columbia River Basin

Columbia River Fish Mitigation

Washington and Oregon

US Army Engineer District, Portland
Northwestern Division

Prepared 1 January 2003

APPROPRIATION TITLE: Construction, General – Ecosystem Restoration

PROJECT: Howard Hanson Dam, Ecosystem Restoration and Additional Water Supply, Washington – (Continuing)

LOCATION: Howard Hanson Dam is located on the Green River, in King County, 23 miles upstream and east of Auburn, and about 35 miles southeast of Seattle in western Washington state.

DESCRIPTION: The project will add ecosystem restoration and municipal and industrial (M&I) water supply to the existing flood control project and will meet Endangered Species Act (ESA) requirements necessitated by the recent listing of the Puget Sound Chinook Salmon. Phase I construction will raise the existing flood control reservoir pool 20 feet (from elevation 1,147 feet to elevation 1,167 feet) to increase storage by 20,000 ac–ft for water supply use. Water will be stored in the spring for M&I use in the summer and fall with no changes to flood control capacity. The additional storage will not require structural changes to the existing dam, but may require right abutment seepage remedies. Phase I will also include construction of a new full height fish passage facility and initiation of miscellaneous ESA and environmental restoration features (reconnection of side channels, gravel nourishment, planting of sedge meadows, and placement of large woody debris at multiple locations). Phase II construction will proceed only with the concurrence of the resource agencies, the sponsor, and the Muckleshoot Tribe. It will consist of raising the pool another 10 feet (to elevation 1,177 feet) to store an additional 2,400 ac–ft of M&I water, plus 9,600 ac–ft of low flow augmentation water, for a total of 32,000 additional ac–ft of storage for stages I and II.

AUTHORIZATION: Section 101(b)15 of Water Resources Development Act of 1999 (PL 106-53). Flood Control Act of 1950 (PL 81-516) authorized the construction of the original Eagle Gorge Reservoir on the Green River. The project name was changed to Howard A. Hanson Dam in 1958 by P.L.85-592.

REMAINING BENEFIT - REMAINING COST RATIO: 1.7 to 1 at 6 5/8% for the water supply portion of the project.

TOTAL BENEFIT – COST RATIO: 1.7 to 1 at 6 5/8% for the water supply portion of the project.

INITIAL BENEFIT – COST RATIO: 1.3 to 1 at 6 5/8% for the water supply portion of the project.

BASIS OF BENEFIT – COST RATIO: Benefits are from the final Feasibility Study Report/EIS, dated August 1998, at the October 1997 price level, with benefits and costs updated to the October 2002 price level.

SUMMARIZED FINANCIAL DATA:

			STATUS	PERCENT	COMPLETION
Estimated Federal Cost		$ 63,028,000	(1 Jan 2003)	COMPLETE	SCHEDULE
Estimated Non-Federal Cost		23,312,000	Phase I	23	1/
Cash Contributions	$18,596,000		Phase II	0	1/
Other Costs	4,716,000		Entire Project	19	1/
Total Project Cost		86,340,000			

1/ To Be Determined

SUMMARIZED FINANCIAL DATA: continued

		Accum
Allocations to 30 September 2002	$11,046,000	Percent. Of Est
Conference Allowance for FY 2003	1/	Fed. Cost
Allocation for FY 2003	1/	
Allocations thru FY 2003	1/	1/
Amount requested for FY 2004	9,500,000	1/
Programmed Balance to Complete after FY2004	1/	
Unprogrammed Balance to Complete after FY 2004	0	

1/ To Be Determined

PHYSICAL DATA:

Dam: Type: Rolled earth and rock fill
- Height: 235 feet long
- Crest: 500 feet long
- Width: 960 feet at base, 23 feet at crest

Spillway: Type: Ogee crest with two 45' x 30' tainter gates
- Design Capacity: 106,000 cfs
- Overtopping Capacity: 19,000 cfs

Outlet Tower:
- Type: Reinforced Concrete
- Free standing section: 107 feet
- Base section 105 feet

19 Ft. Tunnel:
- Capacity: 22,000 cfs open channel flow
- Normal Release 10,000 cfs
- Length 900 feet

JUSTIFICATION: The existing project purposes are flood control and downstream low flow augmentation (the irrigation and M&I water supply purposes of the original authorization have never been implemented). The modified project is a multi-purpose project with the purposes identified in WRDA 1999 as ecosystem restoration and water supply. Because of the 1999 listing of Chinook salmon as threatened under the ESA, compliance with ESA initiatives is also a major project purpose.

Restoring self-sustaining runs of anadromous fish to the upper Green River watershed is the number one priority of multi-agency ecosystem restoration planning for the Green River basin. Between 1911 and 1913, the City of Tacoma constructed a 17-foot-high water supply diversion dam effectively blocking upstream migration of anadromous fish to the Upper Green River watershed. Howard Hanson Dam was constructed upstream of the diversion dam in the 1960's. The project was constructed with only low-level water conveyance outlets with no provision for fish passage, as there was no anadromous fish in the upper watershed. Recently, Section 7 consultation with the NMFS and USFWS has resulted in the requirement that fish passage be provided at Howard Hanson Dam. A state of the art downstream juvenile fish passage facility will be provided by Phase I of this project to work in tandem with an adult trap and haul facility for upstream fish passage to be provided by others. The fish passage, complimented by increased in-stream low flows and other proposed project fish and wildlife habitat restoration measures provide historic opportunities to restore and maintain self sustaining runs of salmon and steelhead in the Green River. Low flow augmentation in the summer months, part of Phase II, will improve spawning habitat and survival success rates downstream of the project. The phased

implementation and adaptive management measures proposed for the project allow for the flexibility to make adjustments to ensure the protection and recovery of fish and wildlife.

The availability and quality of water is an increasing concern in the South Puget Sound Region and the Seattle-Tacoma metropolitan area as best exemplified by recent droughts that have led to water rationing. The region's continuing growth and development and continually expanding population depend upon a reliable supply of water. The Project Phase I water storage is a crucial part of the regional water supply plan and is the major component of the Tacoma-Seattle water supply inter-tie, scheduled for completion in early 2006. The storage of additional M&I and low flow augmentation water will provide a stable, cost effective water supply for the people and wildlife of the region well into the 21st century.

FY 2003 funds are being used to continue construction. This includes continuing the project design, awarding the Excavation and Cofferdam contract for the fish passage facility, and initiation of limited fish and wildlife mitigation efforts.

FISCAL YEAR 2004: The requested amount will be applied as follows:

Complete Excavation and Cofferdam Construction Contract	$ 5,000,000
Initiate Fish Passage Facility Construction Contract	2,850,000
Continue Fish & Wildlife Mitigation	550,000
Planning, Engineering and Design	450,000
Construction Management	650,000
Total	$ 9,500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction	Annual Operation and Maintenance Costs
Provide lands, easements, rights of way, and relocations	$ 4,716,000	
Pay all costs allocated to municipal and industrial water supply and bear all costs of operation, maintenance, repair, rehabilitation and replacement of municipal and industrial water supply facilities.	15,004,000	$108,000
Pay 35 % of the costs allocated to fish and wildlife enhancement, and pay 100 % of the costs of operation, maintenance, repair, rehabilitation, and replacement of fish and wildlife facilities.	3,592,000	634,000

TOTAL NON-FEDERAL COSTS	$23,312,000	$742,000

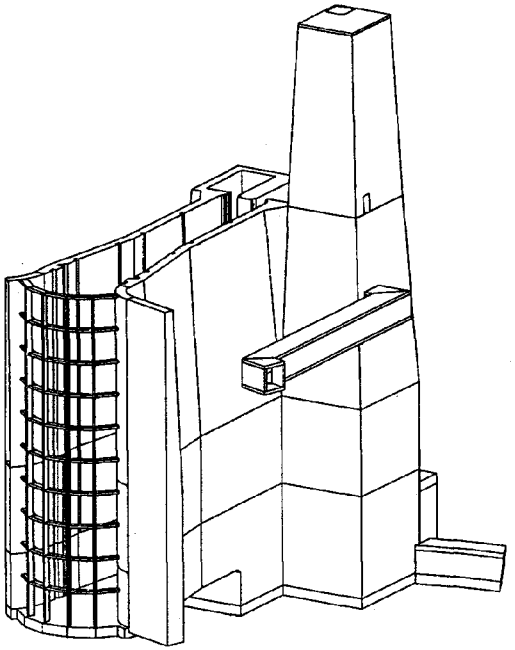
STATUS OF LOCAL COOPERATION: The non-Federal sponsor is the City of Tacoma Public Utilities who is prepared to sign the project PCA in January of 2003 and to provide its full share of the project funding.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with the EPA and the Record of Decision was signed on July 25, 2001.

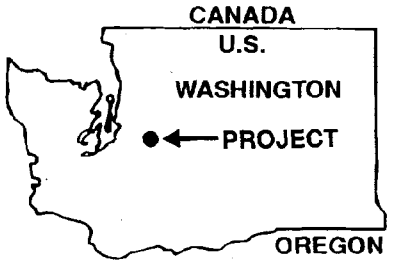
COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $63,028,000 is unchanged from the latest estimate submitted to the Congress in FY 2003.

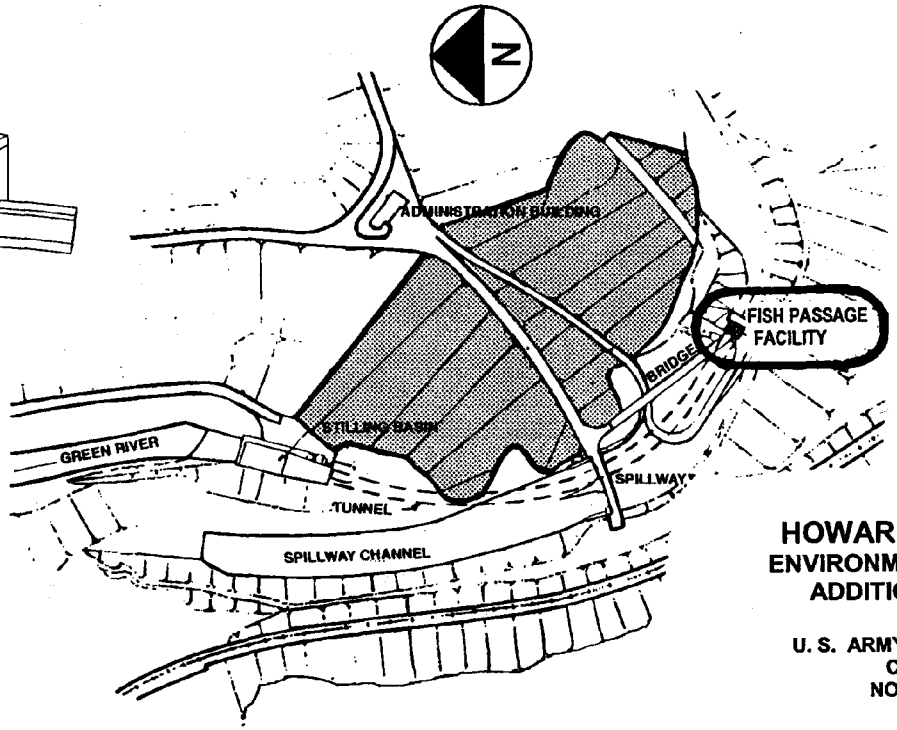
OTHER INFORMATION: Howard Hanson Dam also provides flood control storage on the Green River. Downstream of the dam is the Auburn-Kent Valley with the cities of Auburn, Kent, Renton, Algona, Pacific, and Tukwila. The dam provides flood protection for residential areas, agricultural lands, and intensively developed industrial and commercial areas. The Boeing Space Center, a major defense contractor, is located in the center of the Kent Valley. The number of people who work or live in the flood plain exceeds 250,000. The dam has prevented in excess of $729 million in flood damages since it began operations in 1962, including an estimated $242 million of flood damages prevented from the February 1996 storms.

Funds to initiate Preconstruction Engineering and Design (PED) were appropriated in FY 1998, and the PED agreement was executed with the City of Tacoma Public Utilities in March 1999. The Final Chief's Report was signed on 13 August 1999. Construction funds were first appropriated in FY 2002.



New Fish Passage Facility
65% Concept Design





HOWARD HANSON DAM, WA
ENVIRONMENTAL RESTORATION AND ADDITIONAL WATER SUPPLY

U. S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
NORTHWESTERN DIVISION

1 January 2003

APPROPRIATION TITLE: Construction, General – Ecosystem Restoration

PROJECT: Lower Columbia River Ecosystem Restoration, Oregon and Washington – (Continuing)

LOCATION: The Lower Columbia River extends from the mouth of the Columbia River to river mile (RM) 145 at Bonneville Lock and Dam. The river divides the states of Oregon and Washington throughout this area.

DESCRIPTION: The study areas include the estuary of the Columbia River and all of the tributaries of the Columbia River that are tidally influenced, which includes the Willamette River up to Willamette Falls. Justification for the project is based on non-monetary fishery and other biological benefits. Since benefits are non-monetary, a benefit-to-cost ratio has not been prepared. A comprehensive conservation and management plan was developed for the Lower Columbia River under Section 320 of the Federal Water Pollution Control Act (33 U.S.C. 1330).

AUTHORIZATION: Section 536 of Water Resources Development Act of 2000 (P. L. 106-541, dtd. 11 Dec 2000)

REMAINING BENEFIT - REMAINING COST RATIO: N/A (Environmental restoration project costs are not subject to formal benefit calculations.)

TOTAL BENEFIT-COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA			STATUS (1 Jan 2003)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Appropriation Requirement (COE)		$20,000,000	Entire Cost	0	1/
Estimated Non-Federal Cost		10,000,000			
Cash Contributions	1/				
Other Costs	1/				
Total Estimated Project Cost		$30,000,000			

1/ To Be Determined

PHYSICAL DATA:
Types of projects will include, but not be limited to: a) creation and restoration of shallow water habitat; b) restoration of wetlands; c) improvements to fish passage; and d) restoration of floodplain functions and other actions to restore the estuary ecosystem.

SUMMARY OF FINANCIAL DATA (continued)

Allocations to 30 September 2002	$ 0	Accum
Conference Allowance for FY 2003	1/	Percent of Est
Allocation for FY 2003	1/	Fed Cost
Allocations through FY 2003	1/	1/
Allocation Requested for FY 2004	2,000,000	1/
Programmed Balance to Complete after FY 2004	1/	
Unprogrammed Balance to Complete after FY 2004	0	

1/ To Be Determined

JUSTIFICATION: NOAA Fisheries has identified the Columbia River Estuary as playing a vital role in rebuilding the productivity of Columbia River Basin salmon and steelhead listed under the Endangered Species Act. The NOAA December 2000 Biological Opinion for the Federal Columbia River Power System (FCRPS) calls for the Corps and other Federal "action agencies" to implement actions to avoid jeopardy for these listed species. Actions include protection and enhancement of 10,000 acres of tidal wetlands and other key habitats in the Columbia River estuary over 10 years, beginning in 2001, to rebuild productivity for listed salmon and steelhead populations. The implementation of Lower Columbia estuary actions now is critical to meeting performance requirements at the 3, 5, and 8-year checkpoints for Biological Opinion implementation. The implementation of the Lower Columbia River element of this section 536 legislation will serve as the catalyst to bring together and implement current efforts by a number of governmental and private organizations including the National Estuary Program, six state agencies from Oregon and Washington, four Federal agencies, recreation, ports, industry, agriculture, labor, commercial fishing, environmental interests and citizens to identify and cost share restoration projects.

NON-FEDERAL COSTS: The authorization provides that studies shall be subject to cost sharing in accordance with section 105 of WRDA 1986 and that restoration projects shall be cost shared at 35% by non-Federal interests, that nonfederal interests shall provide all lands, easements, rights-of-way, dredged material disposal areas, and relocations necessary for the projects to be carried out and that in-kind contributions can not exceed 50% of the non-Federal share. However, the Federal share of projects carried out on Federal lands shall be 100%.

STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement has not been prepared. Implementation Guidance has been provided by HQUSACE. Current plans to implement this section include preparing PCAs for individual restoration sites as they are identified.

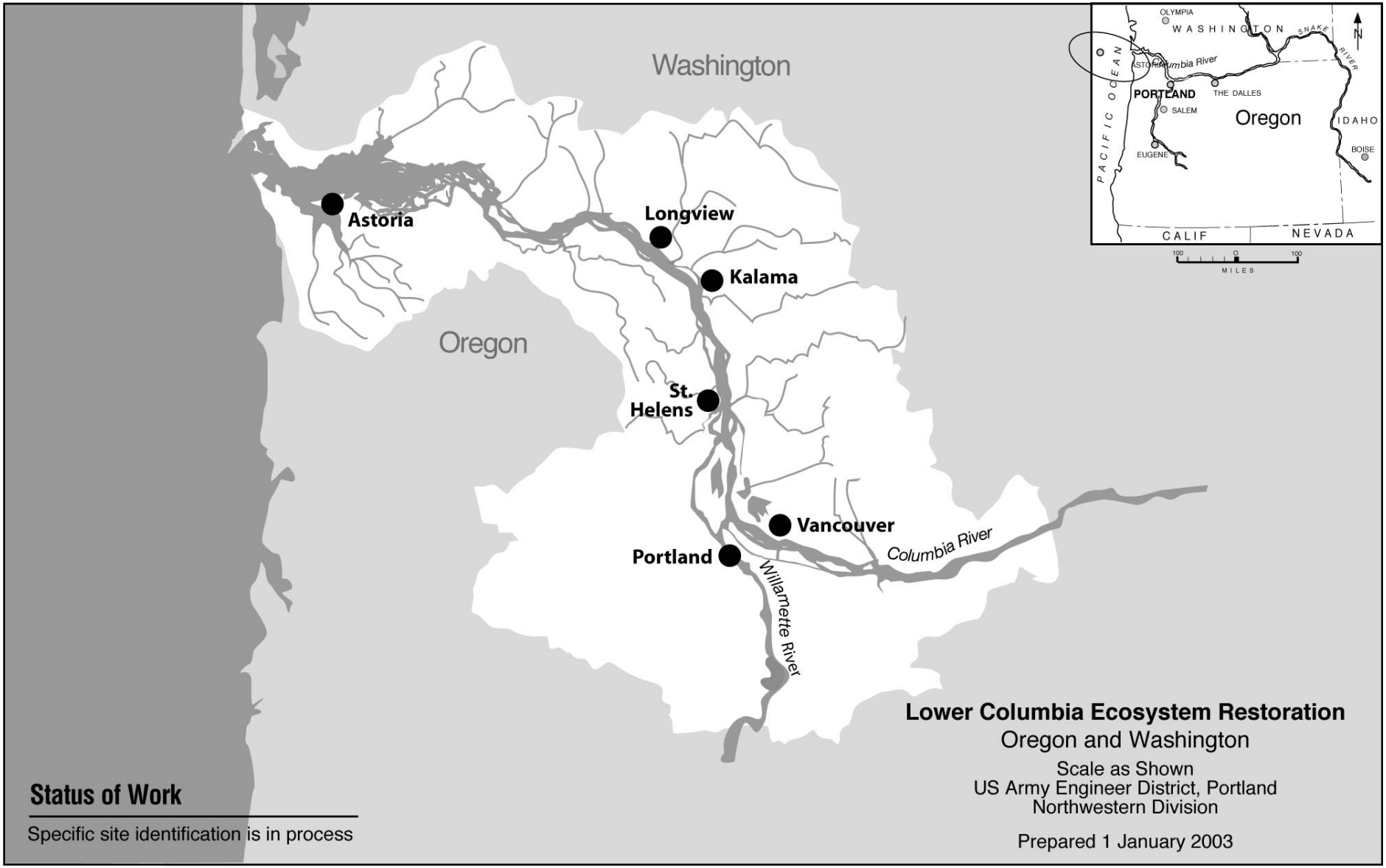
FISCAL YEAR 2004: The requested amount of $2,000,000 will be applied in the Columbia River as follows:

Study (Identify Sites and Priorities)	$ 600,000
Engineering and Design	400,000
Initiate Construction	900,000
Construction Management	100,000
Total	$ 2,000,000

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $20,000,000 is unchanged from last presented to Congress (FY 2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Impact Statement has not been prepared. Implementation Guidance has been provided by HQUSACE. Current plans to implement this section include preparing NEPA documentation on individual restoration sites as they are identified.

OTHER INFORMATION: Types of projects will include, but not be limited to: a) creation and restoration of shallow water habitat; b) restoration of wetlands; c) improvements to fish passage; and d) restoration of floodplain functions and other actions to restore the estuary ecosystem. Also, the Corps is undertaking a feasibility study, Lower Columbia River Ecosystem Restoration, WA & OR, with a broader geographical scope than this project, and addressing ecosystem issues in addition to salmon recovery.


Washington
Oregon
Astoria
Longview
Kalama
St. Helens
Vancouver
Portland
Columbia River
Willamette River
OLYMPIA
WASHINGTON
SNAKE RIVER
PACIFIC OCEAN
Columbia River
PORTLAND
THE DALLES
SALEM
Oregon
IDAHO
BOISE
EUGENE
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Lower Columbia Ecosystem Restoration
Oregon and Washington
Scale as Shown
US Army Engineer District, Portland
Northwestern Division
Prepared 1 January 2003
Status of Work
Specific site identification is in process

APPROPRIATION TITLE: Construction, General - Multiple Purpose Power

PROJECT: Lower Snake River Fish and Wildlife Compensation, Washington, Oregon, Idaho, (Continuing)

LOCATION: Hatchery sites are located at McCall, Idaho, about 1,500 feet downstream from Payette Lake; Lyons Ferry, Washington, at River Mile 59 on the Snake River; Lookingglass, Oregon, about 10 miles northwest of Elgin, Oregon; Hagerman, Idaho, 10 miles west of Twin Falls, Idaho; Irrigon Hatchery, about 10 miles west of Umatilla, Oregon; Dworshak Expansion, Sawtooth Hatchery about 5 miles south of Stanley, Idaho; Magic Valley Hatchery about 4 miles north of Buhl, Idaho; and Clearwater Hatchery about 5 miles west of Orofino, Idaho. Fishing and hunting access and wildlife habitat lands will be located in Washington and Idaho. The riparian lands are located on the Snake and Columbia River Drainages from the Washington/Oregon border upstream to the confluence with the Clearwater River. This reach includes significant tributaries and their watersheds, including (but not limited to) the Walla Walla, Tucannon, Asotin, Grande Ronde, and Imnaha River basins.

DESCRIPTION: The project consists of a number of Chinook and Steelhead hatcheries that will provide 27,000,000 juvenile salmon and steelhead annually. These fish will be released in streams for migration to the Pacific Ocean. Adult salmon and steelhead resulting from these releases will provide both sport and commercial fishing opportunities with over 4 million pounds of fish going to the commercial fisheries and providing approximately 689,000 additional angler days of sport fishing. An estimated 132,000 adult fish will return to the project area of the Snake River. In addition to the anadromous fish, 93,000 pounds of trout will be reared and released in Eastern Washington which will provide 45,000 additional angler days of sport fishing. There will be an aggregate of 24,150 acres in fee or easement for fisherman access, wildlife habitat and hunting access. Additionally, a program has been implemented with Washington State Department of Game to produce the equivalent of 20,000 game birds per year for 20 years. The 1989 Letter of Agreement (LOA) entered into by the U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (COE) and the Washington Department of Fish and Wildlife (WDFW) states that Lower Snake River Fish and Wildlife Plan mitigation, as authorized by Pub. L. 94-587 and Pub. L. 99-662, will be measured on a habitat basis instead of using “animal number replacement” as a basis for measurement. The “Special Report – Lower Snake River Fish and Wildlife Compensation, Wildlife Habitat Compensation Evaluation for the Lower Snake River Project” submitted in June 1991, concluded that, “Current habitat conditions of project lands do not contribute significantly to meeting compensation goals…” This project will restore 1,916 acres of project forbland; 3,285 acres of project woody riparian land; and 24,271 acres of project grass/shrub steppe land to pre-project conditions. Additional project restoration effort would include creation of small forested islands and shallows which would provide the additional benefit of creating substantial natural salmon spawning and rearing habitat. Consequently, significant consideration and effort will be given to protecting, preserving and perpetuating natural salmon spawning and rearing habitat which is a significant beneficiary of woody riparian lands.

AUTHORIZATION: Water Resources Development Act of 1976 as modified by the Water Resources Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: Not Applicable. Mitigation is incrementally justified through consideration of costs and non-monetary benefits.

TOTAL BENEFIT-COST RATIO: Not Applicable.

INITIAL BENEFIT-COST RATIO: Not Applicable.

BASIS OF BENEFIT COST RATIO: Not Applicable.

SUMMARIZED FINANCIAL DATA			ACCUM PCT. OF EST FED COST	STATUS: (1 Jan 03)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Appropriation Requirements		$261,000,000		Entire Project	89	1/
Future Non-Federal Reimbursement		253,307,000		Wildlife Compensation	100	Sep 2002
Estimated Federal Cost (Ultimate)		7,693,000		Fish Facility	88	1/
Estimated Non-Federal Cost		253,530,000		Lands	100	Sep 1994
Cash Contributions	$ 223,000					
Reimbursements	253,307,000					
Power $253,307,000						
Total Estimated Project Cost		261,223,000				
Allocations to 30 Sep 2002		232,232,000				
Conference Allowance for FY 2003		1/				
Allocation for FY 2003		1/				
Allocations through FY 2003		1/	90			
Allocation Requested for FY 2004		2,000,000	91			
Programmed Balance to Complete after FY 2004		1/				
Unprogrammed Balance to Complete after FY 2004		0				

1/ To Be Determined

PHYSICAL DATA

Capacity of Hatcheries
9,160,000 Fall Chinook Smolts - 101,800 lbs.
6,750,000 Spring and Summer Chinook Smolts - 450,000 lbs.
11,020,000 Summer Steelhead - 1,377,500 lbs.
93,000 lbs. Of Resident Sport Fishery

Acquisition of 24,150 acres for fisherman access and wildlife compensation and improvement of land for wildlife compensation.

Restore 1,916 acres of project forbland, 3,285 acres of project woody riparian land, and 24,271 acres of project grass/shrub steppe land to pre-project conditions.

JUSTIFICATION: The Lower Snake River Fish and Wildlife Project will provide for losses to fish and wildlife resources caused by construction and operation of the four dams (Ice Harbor, Lower Monumental, Little Goose, and Lower Granite) constituting the Lower Snake River Project, authorized by P.L. 79-14, as is required by the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) in accordance with the requirements of the Lower Snake River Fish and Wildlife compensation Plan negotiated in accordance therewith and subsequently authorized by P.L. 94-587 and P.L. 99-662.

FISCAL YEAR 2004: The requested amount of $2,000,000 will be applied as follows:

Continue Construction Woody Wetland Riparian Habitat	$2,000,000
Total	$2,000,000

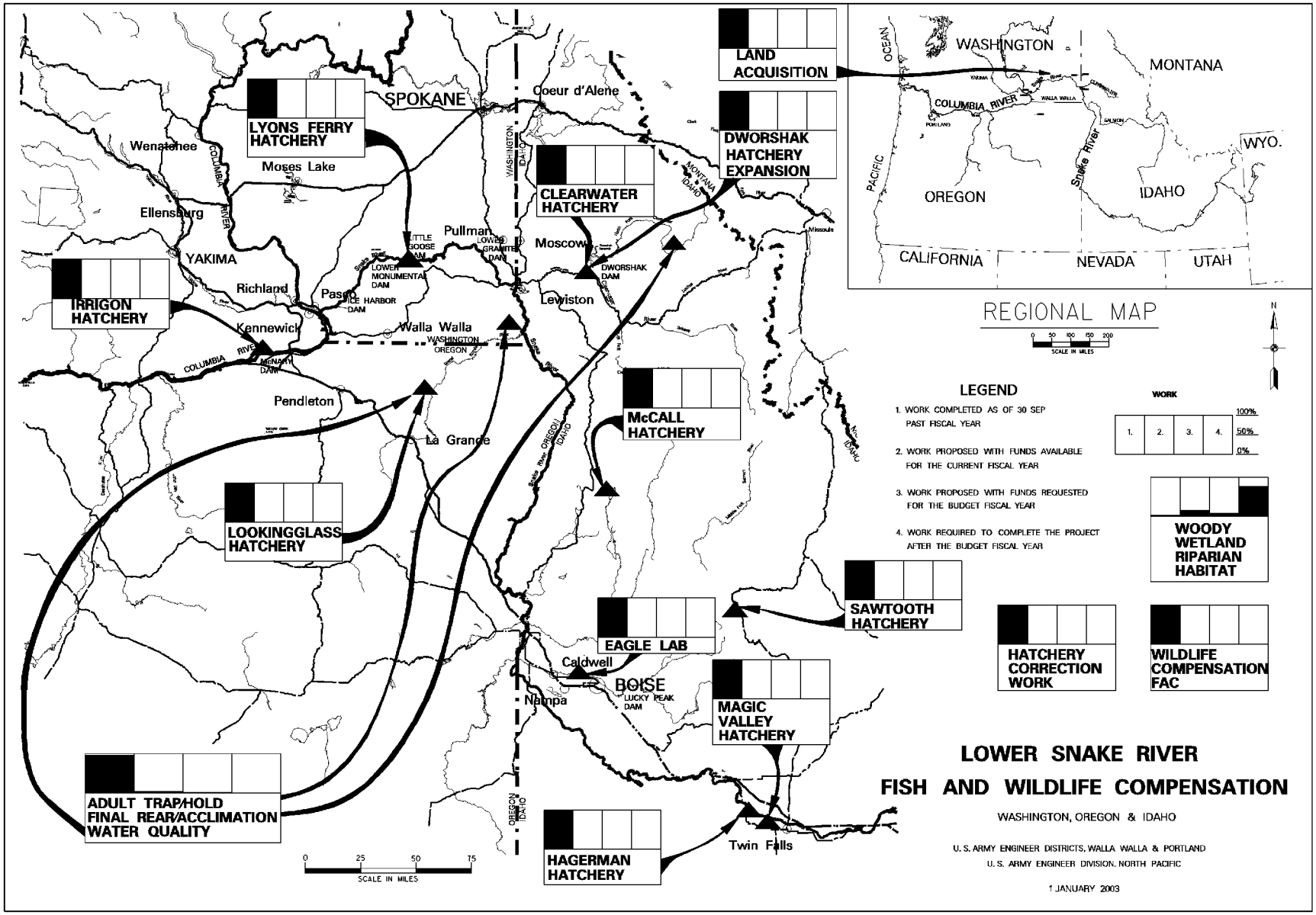
NON-FEDERAL COSTS: Costs allocable to power presently estimated at $253,307,000 are reimbursable. This project is a part of the Federal Columbia River Power System. Bonneville Power Administration (BPA), the Federal marketing agency, establishes system rate levels adequate to recover all capital investment costs for generating projects (including Corps generating projects) within a 50-year period and to repay annual OM&R and interest expenses. BPA submits an annual financial statement to Congress, as required by law, on repayment and periodically recommends rate adjustments as required for meeting repayment obligations. In addition, a cash contribution to expand the Lyons Ferry Hatchery ($223,000) has been furnished.

STATUS OF LOCAL COOPERATION: None required for construction.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $261,000,000 is the same estimate last presented to Congress (FY 2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Council on Environmental Quality on 29 October 1977. Additional Environmental documentation pursuant to NEPA will be accomplished as necessary. Consultations with the National Marine Fisheries Service will be held and biological assessments prepared as necessary to conform with requirements of the Endangered Species Act.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in Fiscal Year 1978 and for Construction in Fiscal Year 1979. The purpose of the entire project is fish and wildlife compensation for the four mainstem dams on the Snake River.



Division: Northwestern

District: Walla Walla

Lower Snake River Fish and Wildlife Compensation, Washington, Oregon, Idaho

3 February 2003

APPROPRIATION TITLE: Construction, General – Environmental Mitigation, Restoration and Protection

PROJECT: Missouri River Fish and Wildlife Mitigation, Iowa, Nebraska, Kansas, and Missouri (Continuing)

LOCATION: All mitigation will occur in the area of impact generally adjacent to the Missouri River in the states of Iowa, Nebraska, Kansas, and Missouri. Project limits are from Sioux City, Iowa, to the mouth, 735 river miles.

DESCRIPTION: The project will mitigate the losses to fish and wildlife habitats resulting from the construction and operation of the Missouri River Bank Stabilization and Navigation Project (BSNP). Construction of the BSNP was completed in 1980, and it is now being operated and maintained. WRDA 86 authorized the Corps to acquire and develop fish and wildlife habitat on 29,900 acres of land and will develop an additional 16,900 acres of existing public lands (state or other Government-owned). WRDA 99 authorized an additional 118,650 acres to be started after completion of NEPA documentation

AUTHORIZATION: Water Resources Development Acts of 1986 and 1999.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable.

INITIAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS: (1 Jan 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	$3,059,687,000		Entire Project	2	1/
Estimated Non-Federal Other Costs	0				
Total Estimated Project Cost	3,059,687,000				
Allocations to 30 September 2002	73,042,000				
Conference Allowance for FY 2003	1/				
Allocation for FY 2003	1/				
Allocations through FY 2003	1/	1/			
Allocation Requested for FY 2004	22,000,000	1/			

1/ To Be Determined

SUMMARIZED FINANCIAL DATA (Continued)

Programmed Balance to Complete after FY 2004	1/	
Unprogrammed Balance to Complete after FY 2004	0	

PHYSICAL DATA (All Federal)

	Acres
Land acquisition and habitat development authorized WRDA 86	48,100
Land acquisition and habitat development authorized WRDA 99	118,650
Total	166,750

1/ To Be Determined

JUSTIFICATION: The project will restore and/or preserve natural ecosystem functions of the Missouri River floodplain, where similar ecosystem was impacted by construction and operation of the Bank Stabilization and Navigation Project (BSNP). The project will mitigate about 30 percent of native habitat losses. Lands needed for implementation will be acquired from willing sellers to the maximum extent possible.

FISCAL YEAR 2004: The requested amount of $22,000,000 will be applied as follows:

Item	Amount
Continue Land Acquisition	$10,000,000
Planning, Engineering, and Design	2,000,000
Continue Construction	8,000,000
Construction Management	800,000
Monitoring and Evaluation	900,000
Operation and Maintenance during construction	300,000
Total	$22,000,000

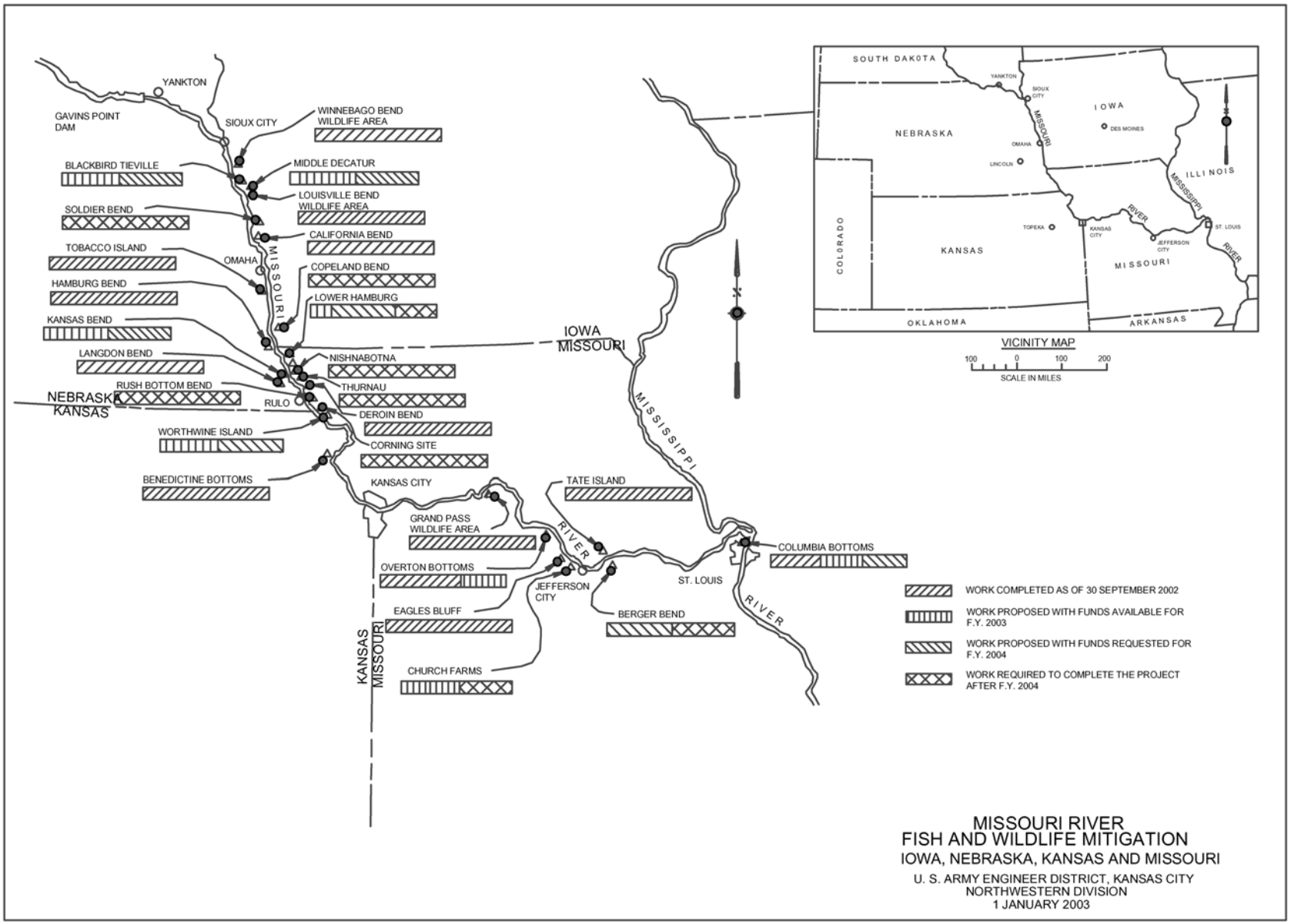
NON-FEDERAL COSTS: Not applicable

STATUS OF LOCAL COOPERATION: The authorizing act provides that the entire cost of this project, including all lands, easements, right-of-way, and relocations, and all operation and maintenance costs be borne by the Federal Government with no costs to either local or state governments. Therefore, there is no non-Federal sponsor for the project. The States of Iowa, Nebraska, Kansas, and Missouri and the USFWS are cooperatively providing support in the form of technical information, site priorities, public involvement, and related information. The States and USFWS are also providing public land by easement for habitat development.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate, to complete acquisition and habitat development, is $3,059,687,000, which is the same as last presented to Congress (FY 2003). This is the same as the amount reported in the “Cost Report” to Congress, after accounting for inflation ($1.3B Oct 2001 Price Level). Current Federal cost estimate includes efforts to acquire and develop habitat to comply with the Biological Opinion issued to the COE on operation of the BSNP Project.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Missouri River Mitigation Project Final Environmental Impact Statement was filed with the U.S. Environmental Protection Agency on 23 December 1982. A supplement to the EIS is being developed to allow acquisition and habitat development on the additional 118,650 acres recently authorized. SEIS scheduled to be completed in FY03.

OTHER INFORMATION: Funds to initiate pre-construction engineering and design were appropriated in FY 1990. Initial construction funds were appropriated in FY 1992. USFWS issued a Biological Opinion to the COE in November 2000. The Bi-Op requires shallow water habitat development to occur by 2005 and continue until 2020 to help the recovery of the endangered pallid sturgeon.


YANKTON
GAVINS POINT DAM
SIOUX CITY
WINNEBAGO BEND WILDLIFE AREA
BLACKBIRD TIEVILLE
MIDDLE DECATUR
LOUISVILLE BEND WILDLIFE AREA
SOLDIER BEND
CALIFORNIA BEND
TOBACCO ISLAND
OMAHA
MISSOURI
COPELAND BEND
HAMBURG BEND
LOWER HAMBURG
KANSAS BEND
IOWA
MISSOURI
LANGDON BEND
NISHNABOTNA
RUSH BOTTOM BEND
THURNAU
NEBRASKA
KANSAS
RULO
DEROIN BEND
WORTHWINE ISLAND
CORNING SITE
BENEDICTINE BOTTOMS
KANSAS CITY
TATE ISLAND
MISSISSIPPI
GRAND PASS WILDLIFE AREA
RIVER
COLUMBIA BOTTOMS
OVERTON BOTTOMS
JEFFERSON CITY
ST. LOUIS
EAGLES BLUFF
BERGER BEND
RIVER
KANSAS
MISSOURI
CHURCH FARMS
SOUTH DAKOTA
YANKTON
SIOUX CITY
IOWA
NEBRASKA
OMAHA
DES MOINES
LINCOLN
ILLINOIS
MISSISSIPPI
RIVER
COLORADO
TOPEKA
KANSAS CITY
JEFFERSON CITY
ST. LOUIS
KANSAS
MISSOURI
RIVER
OKLAHOMA
ARKANSAS
VICINITY MAP
100 0 100 200
SCALE IN MILES
WORK COMPLETED AS OF 30 SEPTEMBER 2002
WORK PROPOSED WITH FUNDS AVAILABLE FOR F.Y. 2003
WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2004
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2004
MISSOURI RIVER
FISH AND WILDLIFE MITIGATION
IOWA, NEBRASKA, KANSAS AND MISSOURI
U. S. ARMY ENGINEER DISTRICT, KANSAS CITY
NORTHWESTERN DIVISION
1 JANUARY 2003

APPROPRIATION TITLE: Construction, General - Environmental Mitigation, Restoration and Protection

PROJECT: Willamette River Temperature Control, Oregon (Continuing)

LOCATION: Located in the Willamette River Basin in northwestern Oregon and contains an area of approximately 12,000 square miles.

DESCRIPTION: During the last 40 years, 13 Corps reservoirs have been constructed in the Willamette basin to control floods, generate power and provide water for navigation, irrigation, improving water quality, recreation and fish and wildlife. State and Federal resource agencies including the Northwest Power Planning Council want to modify water temperatures downstream from two reservoirs, Blue River and Cougar, to achieve more beneficial temperatures for anadromous fish under present flow conditions in the McKenzie River sub-basin. Project facilities are intended to restore fish and wildlife habitat by improving downstream water temperatures that may have been degraded by the existing Corps projects at Blue River and Cougar Lakes. Restoring pre-project temperatures will improve survival rates and increase populations of three important native fish species: the wild stock of Willamette spring chinook salmon (a species listed as threatened in March 1999 under the Endangered Species Act, ESA), the bull trout (listed as threatened in July 1998 under the ESA), and the rainbow trout. These fisheries once provided important recreational and commercial benefits to the region. Justification for the project is based on non-monetary fishery and other biological benefits. Since benefits are non-monetary, a benefit-to-cost ratio has not been prepared. A feasibility study was completed in April 1995.

AUTHORIZATION: Water Resources Development Act of 1996 (PL 104-303), October 12, 1996; Water Resources Development Act of 1999 (PL 106-53), August 17, 1999.

REMAINING BENEFIT - REMAINING COST RATIO: N/A Mitigation is incrementally justified through consideration of costs and monetary and non-monetary benefits. A benefit-cost ratio is not computed.

TOTAL BENEFIT-COST RATIO: N/A

INITIAL BENEFIT-COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA

			STATUS	PERCENT	COMPLETION
Estimated Appropriation Requirement		$ 72,900,000	(1 Jan 03)	COMPLETE	SCHEDULE
Future Non-Federal Reimbursement	$ 9,890,000				
Estimated Federal Cost (Ultimate)	63,010,000		Entire project	30 %	1/
Estimated Non-Federal Cost	$ 9,890,000				
Cash Contribution	0				
Other Costs	0				
Reimbursements - Power	$ 9,890,000				
Total Estimated Project Cost		$ 72,900,000			

1/ To Be Determined

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM. PCT. OF EST. FED COST
Allocations to 30 September 2002	$29,535,300	
Conference Allowance for FY 2003	1/	
Allocation for FY 2003	1/	
Allocations through FY 2003	1/	1/
Allocation Requested for FY 2004	10,000,000	1/
Programmed Balance to Complete after FY 2004	1/	
Unprogrammed Balance to Complete after FY 2004	0	

PHYSICAL DATA

Improvements: Modifications of the existing intakes towers by adding selective withdrawal capability at Cougar and Blue River projects.

1/ To Be Determined

JUSTIFICATION: The Willamette River spring chinook salmon was listed as threatened in March 1999 under the ESA and the bull trout is listed as threatened (July 98). Both of these species and the native rainbow trout will benefit as a direct result of this project. It is expected that this project will reverse the decline of the once popular fisheries stocks on the McKenzie River and preclude the listing of yet another of the region's highly valued fish species. Construction of Cougar and Blue River reservoirs in the 1960's and subsequent operation altered the temperature regime of the South Fork McKenzie, Blue, and the McKenzie rivers below the projects. Because of reservoir operation for flood control, river temperatures are now warmer in fall and early winter and cooler in spring and summer than they were prior to reservoir construction. The magnitude of impacts to fisheries from change in temperature regimes of the rivers below the dams were not expected at the time of design and construction. These effects are primarily above Leaburg Diversion Dam near Vida. Populations of salmon and resident trout are less than optimal due to failure of the fish to migrate to available habitat on the mainstem McKenzie above Leaburg. Habitats below Leaburg are overcrowded. Fishery resource agencies' studies indicate that the reason for the underutilization of habitat above Leaburg is due to the change in temperature regime. Restoring water temperatures downstream of these projects to general pre-project conditions will benefit native Willamette spring chinook salmon, bull trout, and native rainbow trout. Installation of selective withdrawal at both projects will significantly improve water temperatures in the South Fork and Blue Rivers and provide the best conformance to pre-project water temperatures on the main stem McKenzie downstream to Leaburg Dam.

FISCAL YEAR 2004: The requested amount of $10,000,000 will be applied as follows:

Engineering and Design	$ 2,495,500
Continue Construction	6,739,500
Construction Management	765,500
Total	$10,000,000

NON-FEDERAL COSTS: This Project is initially 100% Federal funded. Cougar Dam costs allocated to power will ultimately be reimbursed by the Federal Power Marketing Agency (Bonneville Power Administration). This reimbursement is currently estimated to be $9,890,000. See “Other information” below.

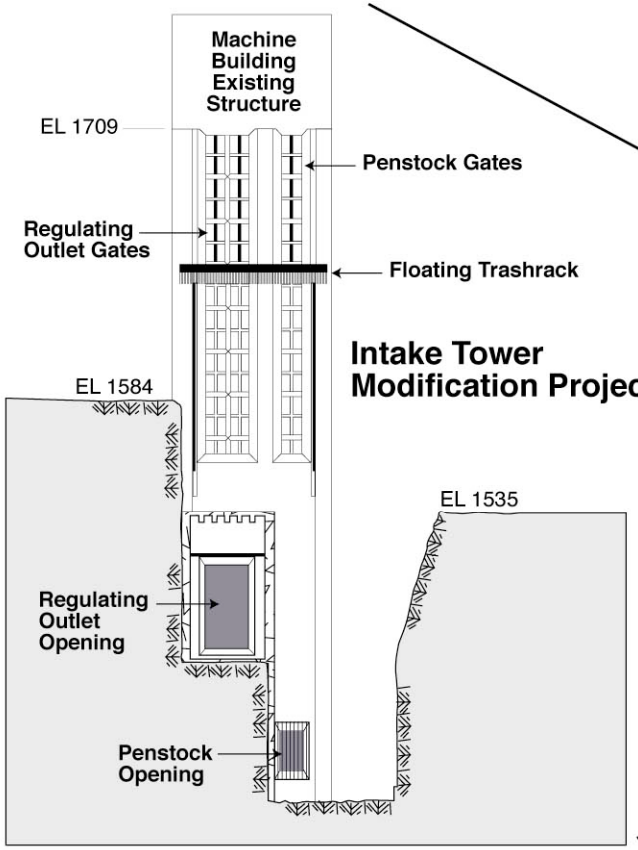
STATUS OF LOCAL COOPERATION: N/A

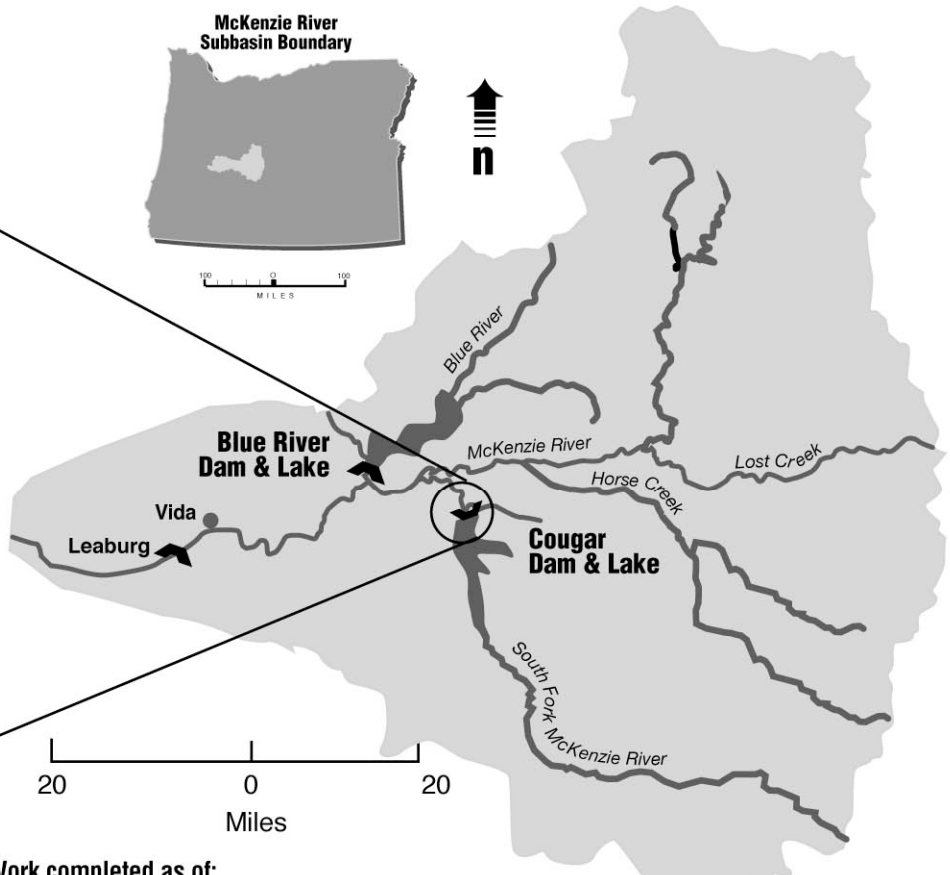
COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $72,900,000 is an increase of $900,000 from the latest estimate ($72,000,000) presented to congress (FY 2003). The change is due to price escalation.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Draft Environmental Impact Statement indicates the potential environmental impacts from the development are minor. The Environmental Impact Statement was completed and a Finding of No Significant Impact was signed by the Division Commander on 24 April 1996. The Corps is currently preparing a supplemental Information Report and EA Supplement to address environment impacts due to reservation draw down which was accomplished to allow access for Intake Tower construction at Cougar.

OTHER INFORMATION: This project is one of many Corps efforts aimed at enhancing listed salmon species in the Columbia River Basin. The cost of the recommended plan will be repaid based on allocations to the original project purposes of flood control, navigation, and hydropower. Prior to the Willamette River Temperature Control project, twenty-three percent of the Cougar project costs were allocated to hydropower and none of the Blue River project costs were allocated to power. Thus, twenty-three percent of the Willamette River Temperature Control Cougar project modification costs will be allocated to hydropower and will ultimately be repaid to the Federal Treasury through rates established by the Bonneville Power Administration (BPA).

The costs presented herein reflect the total estimate for Cougar and Blue River as presented in the Cougar Lake Feature Design Memorandum (FDM), dated July 31, 1998. WRDA 1999 reauthorized the project in accordance with this FDM at a total uninflated cost of $64,741,000.





Schedule

	Work completed as of:
Complete diversion tunnel and continue Intake tower modification at Cougar	FY2003
Continue intake tower modification at Cougar Lake and engineering and design for Blue River	FY2004
Complete intake tower modification at Cougar Lake and initiate modifications at Blue River Lake	After FY2004

Willamette River Basin

Willamette River Temperature Control

Oregon

US Army Engineer District, Portland
Northwestern Division

Prepared 1 January 2003

APPROPRIATION TITLE: Construction, General (Major Rehabilitation on Multiple-Purpose Power Projects)

PROJECT: Bonneville Powerhouse (Phase II - Main Unit), Oregon and Washington (Continuing)

LOCATION: On the Columbia River 42 miles east of Portland, Oregon, along Interstate 84, between the states of Oregon and Washington.

DESCRIPTION: Rewind or repair six generators, replace ten turbines; rehabilitate and repair the 1st Powerhouse bridge cranes and rails; rehab and repair or replace the electro-mechanical governor-front-ends; and rehab and repair the wicket gates.

AUTHORIZATION: Bonneville Project Act of 1937, August 20, 1937.

REMAINING BENEFIT - REMAINING COST RATIO: 2.58 to 1 at 8.25 percent

TOTAL BENEFIT - COST RATIO: 1.06 to 1 at 8.25 percent

INITIAL BENEFIT - COST RATIO: 1.5 to 1 at 8.25 percent

BASIS OF BENEFIT - COST RATIO: Benefits are from the Evaluation Report submitted 15 March 1992 at March 1992 price levels.

SUMMARIZED FINANCIAL DATA		
Estimated Appropriation Requirement		$124,300,000
Future Non-Federal Reimbursement	$124,300,000	
Estimated Federal Cost (Ultimate)	0	
Estimated Non-Federal Cost	$124,300,000	
Cash Contributions	$ 0	
Other Costs	0	
Reimbursements	124,300,000	
Power	$124,300,000	
Total Estimated Project Cost		$124,300,000

STATUS (1 JAN 03)	PERCENT COMPLETE	COMPLETION SCHEDULE
Entire Project	54%	1/

PHYSICAL DATA (EXISTING PROJECT)
Powerhouse: Number of generating units - 10
Total plant capacity - 531,630 kw

1/ To Be Determined

SUMMARY OF FINANCIAL DATA (continued)

		ACCUM PCT OF EST FED COSTS
Allocations to 30 September 2002	$ 71,136,000	
Conference Allowance for FY 2003	1/	
Allocation for FY 2003	1/	
Allocations through FY 2003	1/	1/
Allocation Requested for FY 2004	3,363,000	1/
Programmed Balance to Complete after FY 2004	1/	
Unprogrammed Balance to Complete after FY 2004	0	

1/ To Be Determined

JUSTIFICATION: The Bonneville Powerhouse was dedicated on 28 September 1937. This powerhouse was the first of several multi-unit powerhouses constructed by the Corps of Engineers on the Columbia River System. It serves as an integral part of the Northwest Power Pool Transmission Grid and contributes nearly 5% of the total Corps of Engineer's output to the Department of Energy's (Bonneville Power Administration) transmission System. The plant has 10 Kaplan type main unit turbines, with a total rated capacity of 531,630 kW. The original design of the plant was primarily for base load operation. The plant is presently used both as a base load and peaking plant. Current operation of the plant for peaking as well as balancing regional power load variations requires rapid control of generating units to compensate for changing load and voltage conditions. This imposes increased stress on the generating/power train components contributing to the most recent failures (specifically winding coil and blade failures). Moreover, the main operational constraints imposed to enhance fish migration result in more numerous unit starts and stops. Tests conducted by both Bonneville Power Administration and the Corps of Engineers personnel indicate slow voltage and system load restoration response. This work will increase the overall reliability and efficiency power generation and enhance downstream juvenile fish survival due to increased turbine efficiency. The power plant requires frequent and complex maintenance, resulting in increased maintenance costs and, more importantly, lost generating capability through unscheduled equipment outages. Six units have experienced winding failures and one unit out of three is currently derated because of coil failures. Also to be considered is the role which the Second Powerhouse plays in the operation of the first Powerhouse. Since 1983, operation of the Second Powerhouse has been restricted during juvenile fish migration periods (15 March through 15 November). However, with installation of a new juvenile bypass system, the second powerhouse has become the priority powerhouse during spring and summer and the first powerhouse being used to meet firm energy load, control total dissolved gas, or to maintain daytime spill operations at or below 75,000 cfs. Total average annual benefits are estimated to be $9,650,000. For all ten replacement turbines, the contractor has been requested to manufacture and install minimum gap runners. Direct survival field tests indicate that there is less mechanical injury to fish by at least 1% and an increase in peak efficiency by approximately 4.5%

FISCAL YEAR 2004:The requested amount of $ 3,000,000, will be applied as follows:

Continue Powerhouse Rehabilitation	$ 2,863,000
Continue Planning, Engineering, and Design	250,000
Continue Construction Management	250,000
Total	$ 3,363,000

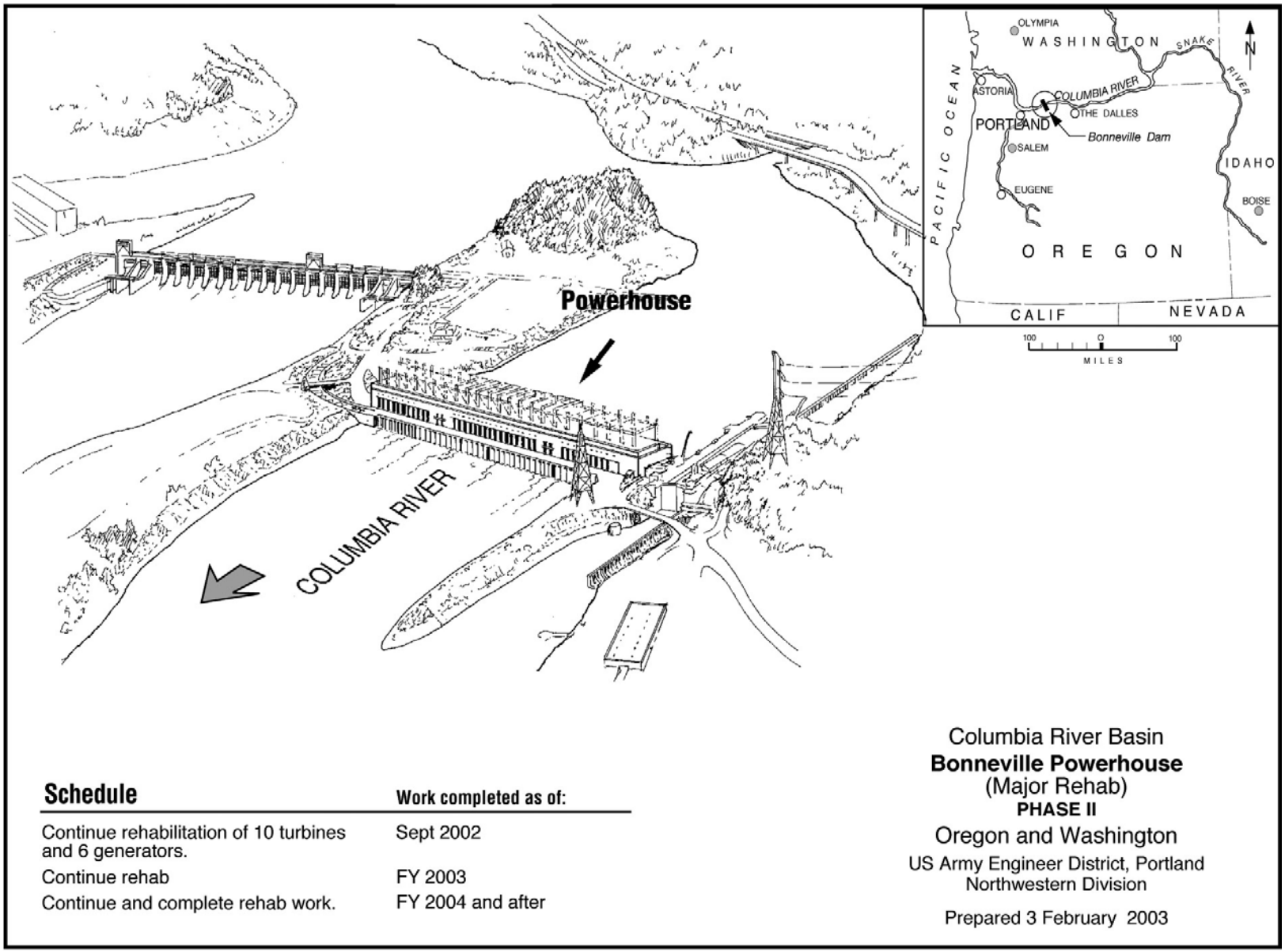
NON-FEDERAL COSTS: Costs allocated to power, presently estimated at $124,300,000, are reimbursable. This project is part of the Federal Columbia River power system. Bonneville Power Administration (BPA), the federal marketing agency, establishes system rate levels adequate to recover all capital investment cost for generating projects (including Corps generating projects) within 50-year period and to repay annual OM&R and interest expenses. BPA submits annual financial statements to Congress, as required by law, on repayment and periodically recommends rate adjustment as required for meeting repayment obligations.

STATUS OF LOCAL COOPERATION: None required for major rehabilitation.

COMPARISON OF FEDERAL COST ESTIMATE: The current federal cost estimate of $124,300,000 is an increase of $1,500,000 over the latest estimate ($122,800,000) submitted to Congress (FY2003). This change is due to price escalation for construction features.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment (EA) and a Finding of No Significant Impact (FONSI) was finalized on 6 March 1992 for the Bonneville Powerhouse, Major Rehabilitation (Phase II) work.

OTHER INFORMATION: Initial construction of the powerhouse was completed in 1943.



Schedule	Work completed as of:
Continue rehabilitation of 10 turbines and 6 generators.	Sept 2002
Continue rehab	FY 2003
Continue and complete rehab work.	FY 2004 and after

Columbia River Basin
Bonneville Powerhouse
(Major Rehab)
PHASE II
Oregon and Washington
US Army Engineer District, Portland
Northwestern Division
Prepared 3 February 2003

APPROPRIATION TITLE: Construction, General (Major Rehabilitation)

PROJECT: Garrison Dam and Power Plant, North Dakota (Continuing)

LOCATION: The Garrison Dam Project is located in McLean and Mercer Counties in North Dakota on the Missouri River approximately 77 river miles upstream of Bismarck near Riverdale, North Dakota.

DESCRIPTION: Garrison Dam and Reservoir is a multi-purpose project consisting of a rolled earth-filled dam with a sheet pile cutoff, a hydroelectric power plant, and a reservoir with storage capacity of 23,821,000 acre feet for flood control, navigation, power, recreation, irrigation, and municipal supply. Five hydraulic turbine-driven generating units with a total plant rated capacity of 518 MW and the operation and maintenance facilities are housed in the powerhouse. The present hydropower benefits directly associated with Garrison Power Plant include (1) clean, non-polluting power generation for the region, and (2) average power generation revenues of about $33.6 million per year to the U.S. Treasury. This major rehabilitation project will replace the existing turbine runners on all five units with new runners designed to improve reliability and maximize efficiency over a broad range of operating conditions.

AUTHORIZATION: Flood Control Act of 1944, PL 78-534 (existing project)

REMAINING BENEFIT-REMAINING COST RATIO: 5.09 to 1 at 7 3/4 percent

TOTAL BENEFIT-COST RATIO: 1.9 to 1 at 7 3/4 percent

INITIAL BENEFIT-COST RATIO: 1.9 to 1 at 7 3/4 percent (FY 1997)

BASIS OF BENEFIT-COST RATIO: Benefits are from the Garrison Dam & Power Plant Major Rehabilitation Evaluation Report approved 27 February 1995 at 1994 price levels.

SUMMARIZED FINANCIAL DATA:

			STATUS (1 Jan 2003)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost		$55,363,000			
Estimated Non-Federal Cost		0	Entire Project	55	1/
Cash Contributions	$ 0				
Other Costs	0				
Total Estimated Project Cost		55,363,000			

PHYSICAL DATA

Power Installation: 3 Units at 109,250 KW
2 Units at 95,000 KW

SUMMARIZED FINANCIAL DATA (continued)		ACCUM PCT OF EST FED COST
Allocations to 30 September 2002	$ 29,433,000	
Conference Allowance for FY 2003	1/	
Allocation for FY 2003	1/	
Allocations through FY 2003	1/	1/
Allocation Requested for FY 2004	6,500,000	1/
Programmed Balance to Complete after FY 2004	1/	
Unprogrammed Balance to Complete after FY 2004	0	

1/ To Be Determined

JUSTIFICATION: All five of the Garrison turbine runners have experienced cracking at the trailing edges of their runner blades near the runner crown. Cracking was first discovered on Unit 3 in 1958 during an annual inspection. Cracking has continued through the years such that occasional repairs of blades in Unit 1 and annual-to-biennial repairs of blades in Units 2 through 5 must be performed. The continued cracking jeopardizes the future reliability of the runners, creating a potential for long outages due to a possible failure requiring complete shutdown of an affected unit. While no failures have occurred, continued weld repairs produce increasingly unfavorable metallurgy and residual stress distribution, increasing the probability of a failure. Studies indicate that without the proposed correction the failure probability will gradually increase until failure occurs. Installation of new improved turbine runners for all five units will avoid such reliability problems, both present and future, by correcting the cyclic loading which causes the turbine runner blade cracking. This will decrease operation and maintenance costs and extend the life of the hydropower plant. Lost plant efficiency will be restored and efficiency will be increased beyond the original 1950's design without an increase in cost over a replacement option using in-kind turbine runners. Average annual benefits are as follows:

Annual Benefits	Amount
Deferred Maintenance Benefits	$ 1,598,000
Restored Efficiency Benefits	4,016,000
Efficiency Improved Benefits	2,773,000
Total Benefits	$ 8,387,000

FISCAL YEAR 2004: The requested amount of $6,500,000 will be applied as follows:

Item	Amount
Turbine Runner Work	$ 5,827,000
Planning, Engineering & Design	333,000
Construction Management Activities	340,000
Total	$ 6,500,000

NON-FEDERAL COSTS: There is no requirement for a non-Federal sponsor for this project. Garrison Dam is a multi-purpose project, and the cost for the turbine runner modifications will benefit hydropower generation only. The hydropower from Garrison Powerplant is marketed by Western Area Power Administration

(WAPA), thru which project costs are repaid to the Treasury. WAPA has provided a letter stating that they "will be able to market any additional power gained through increased efficiency of the turbines."

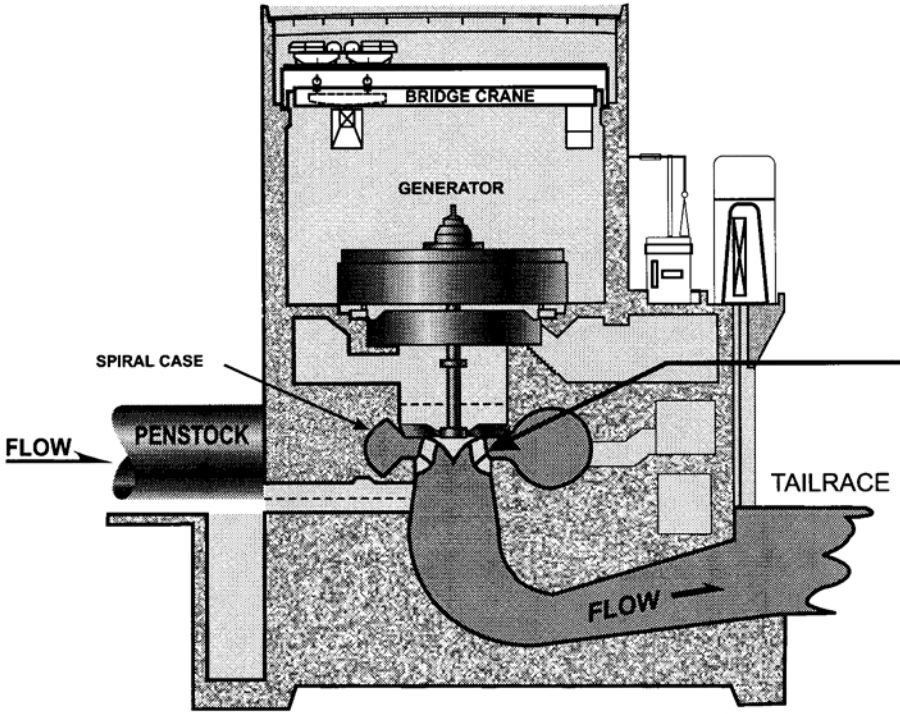
STATUS OF LOCAL COOPERATION: N/A

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $55,363,000 is an increase of $254,000 from the latest estimate ($55,109,000) presented to Congress (FY 2003). This change includes the following items:

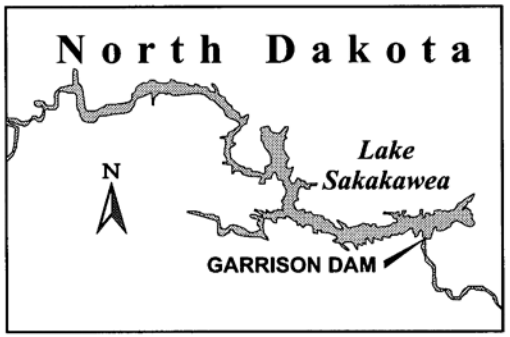
ITEM	AMOUNT
Other estimating adjustments	0
Price escalation on construction features and changes in projected inflation rates	254,000
Total	$+ 254,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The proposed rehabilitation is not a major Federal action that would significantly affect the quality of the human environment, and therefore did not require the preparation of an environmental impact statement. The U.S. Fish and Wildlife Service concurred with the "Finding Of No Significant Impact."

OTHER INFORMATION: This project consists of replacing all 5 turbine runners at the Garrison Dam Project. Turbine related work will be done under a furnish and install contract. Machining and painting work will be subcontracted. The units being removed will be dismantled and sold as scrap metal, except for one unit which will become a display for the plant tourists. The estimate assumes that only one unit at a time will be off line. A one month allowance has been included in the estimate for startup and testing for each unit prior to starting on the next unit. Additional work consisting of fabricating and installing new wicket gates and replacing existing circuit breakers and transformers was added to the project in FY00. Additional work consisting of removal of the existing generator coils and iron core, re-level and align the stator frame and purchase and install new laminations and coils was added to the project in FY02 as a result of unexpected shaft alignment problems on 3 generator units. There is no requirement to undertake fish and wildlife mitigation measures in conjunction with this rehabilitation project. Initial construction of the powerhouse was completed in 1955.



TRANSFER SECTION THRU
GARRISON DAM POWER PLANT



VICINITY MAP

5 TURBINE RUNNERS

WORK COMPLETED

WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR

WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR

WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR

GARRISON DAM & POWER PLANT
NORTH DAKOTA
MAJOR REHABILITATION

U.S. Army Engineer District, Omaha
Northwestern Division
1 January 2003

APPROPRIATION TITLE: Construction, General (Major Rehabilitation on Multiple-Purpose Power Projects)

PROJECT: The Dalles Powerhouse (Units 1-14), Washington and Oregon (Major Rehabilitation) (Continuing)

LOCATION: On the Columbia River at the head of Bonneville Lake, 191.5 miles upstream from the mouth of the river and three miles east of The Dalles, Oregon.

DESCRIPTION: Rewind nine generators, refurbish fourteen turbine units, and refurbish two powerhouse bridge cranes.

AUTHORIZATION: River and Harbor Flood Control Act of 17 May 1950, Public Law 516, 81st Congress, 2nd Session; Public Laws 78-534, 85-624, 98-396, and 92-500.

REMAINING BENEFIT - REMAINING COST RATIO: 3.04 To 1 at 7-5/8 percent

TOTAL BENEFIT - COST RATIO: 3.77 to 1 at 7-5/8 percent

INITIAL BENEFIT - COST RATIO: 4.34 to 1 at 7-3/4 percent

BASIS OF BENEFIT - COST RATIO: Benefits are from the Evaluation Report submitted 15 March 1995 at October 1995 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM	STATUS	PERCENT	COMPLETION
Estimated Appropriation Requirement	$104,800,000	% OF EST	(1 JAN 2003)	COMPLETE	SCHEDULE
Future Non-Federal Reimbursement	$104,800,000	FED COST			
Estimated Federal Cost (Ultimate)	0		Entire Project	25%	1/
Estimated Non-Federal Cost	$104,800,000				
Reimbursements $104,800,000					
Power $104,800,000					
Total Estimated Project Cost	$104,800,000				

Allocations to 30 September 2002	$ 31,102,000		PHYSICAL DATA (EXISTING PROJECT)
Conference Allowance for FY 2003	1/		
Allocation for FY 2003	1/		Powerhouse (Units 1-14)
Allocations through FY 2003	1/	1/	Units 1-14 capacity - 1,092 MW
Allocation Requested for FY 2004	250,000	1/	
Programmed Balance to Complete after FY 2004	1/		
Unprogrammed Balance to Complete after FY 2004	0		

1/ To Be Determined

JUSTIFICATION: The Dalles Powerhouse has been producing commercial power since 1957. It serves as an integral part of the Northwest Power Pool Transmission Grid and accounts for 6.5% of the total hydroelectric power generated by the Columbia River Projects. The Dalles Powerhouse itself is nearly one-half mile long with a total of 22 generating units. Fourteen units were installed during initial construction of the powerhouse (1952-1960); eight more units were added later (l969-1972). There are four additional small generating units at the powerhouse; two discharge fish attraction water and two generate power for use at the project. The project's generating capacity is 1,807 megawatts (MW). The Dalles provides hydroelectric power for both base load and peaking operations, but operates primarily in a peaking mode. The peaking operation results in an average of 180 start-stops per unit per year. On Units 1-14, the cumulative effects of age and start-stops resulted in several generator failures that required rewinding. The remaining five of the nine generators are under a multi-year contract for rewinds. In addition, turbine efficiency on units 1-14 has declined an average of two percent, believed primarily due to turbine component surface roughness caused by corrosion. This reduces the total amount of energy The Dalles Project can produce. The current turbine rehabilitation program includes replacement of the turbine blades, however, a turbine blade surface treatment application is being considered as an alternative to blade replacement, with testing planned in FY 2003.

FISCAL YEAR 2004: The requested amount of $250,000 will be applied as follows:

Continue Powerhouse Rehabilitation	$ 125,000
Continue Planning, Engineering, and Design	125,000
Total	$ 250,000

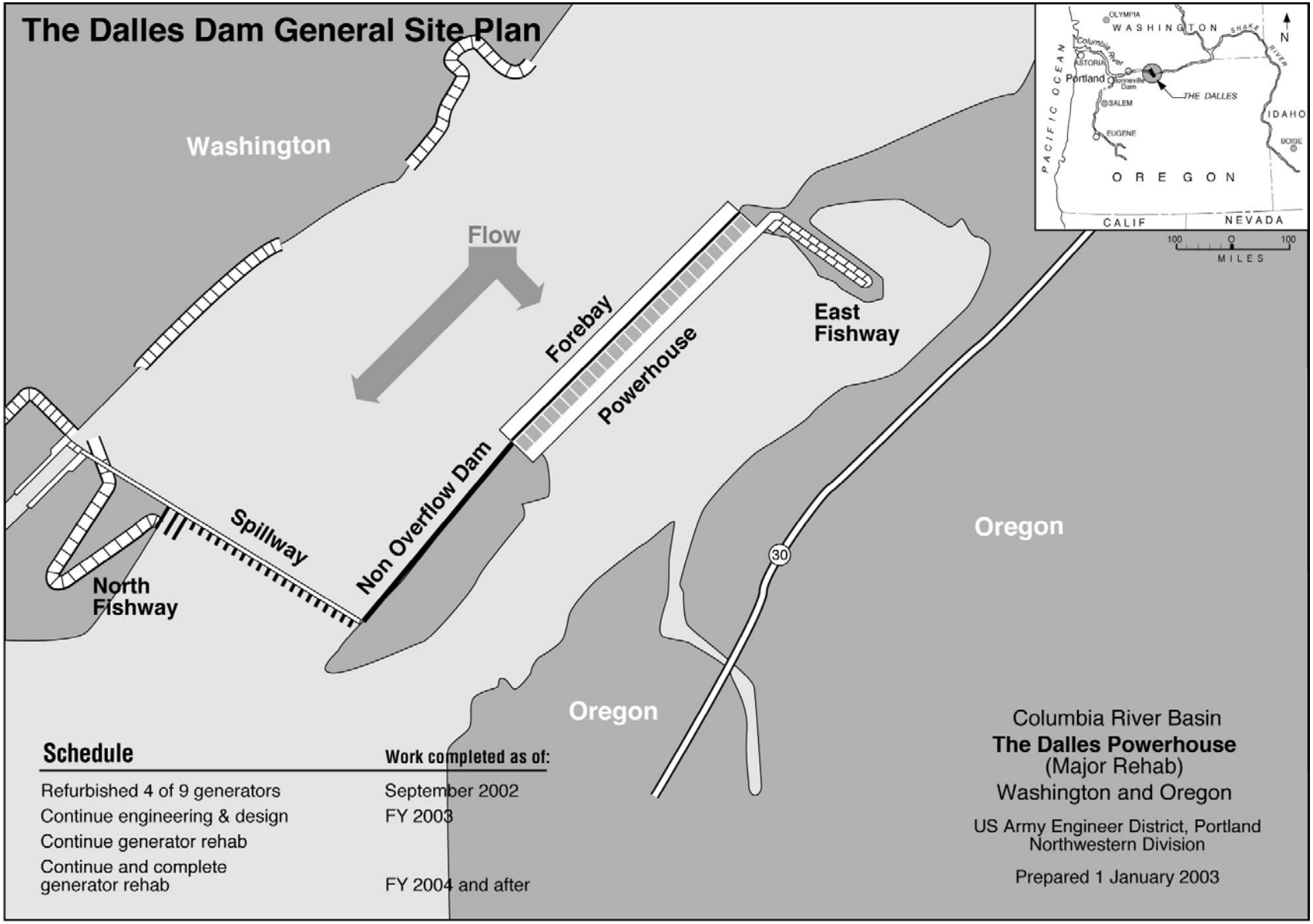
STATUS OF LOCAL COOPERATION: None required for major rehabilitation.

NON-FEDERAL COST: Costs allocated to power, presently estimated at $104,800,000, are reimbursable. This project is a part of the Federal Columbia River power system. Bonneville Power Administration (BPA), the federal marketing agency, establishes system rate levels adequate to recover all capital investment cost for generating projects (including Corps generating projects) within 50-year period and to repay annual OM&R and interest expenses. BPA submits annual financial statements to Congress, as required by law, on repayment and periodically recommends rate adjustment as required for meeting repayment obligations.

COMPARISON OF FEDERAL COST ESTIMATE: The current federal cost estimate of $104,800,000 is an increase of $1,900,000 from the latest estimate presented to Congress (FY 2003). The change is due to price escalation on construction features.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment (EA) and a Finding of No Significant Impact (FONSI) was finalized on 13 March 1995 for The Dalles Powerhouse (Units 1-14) Major Rehabilitation work.

OTHER INFORMATION: Initial construction of the powerhouse was completed in 1960.


The Dalles Dam General Site Plan
Washington
Flow
Forebay
Powerhouse
East Fishway
Spillway
Non Overflow Dam
North Fishway
Oregon
Oregon
30
OLYMPIA
WASHINGTON
SNAKE RIVER
N
Columbia River
ASTORIA
Portland
PACIFIC OCEAN
THE DALLES
SALEM
IDAHO
EUGENE
BOISE
OREGON
CALIF
NEVADA
100 0 100
MILES
Schedule
Work completed as of:
Refurbished 4 of 9 generators
September 2002
Continue engineering & design
FY 2003
Continue generator rehab
Continue and complete generator rehab
FY 2004 and after
Columbia River Basin
The Dalles Powerhouse
(Major Rehab)
Washington and Oregon
US Army Engineer District, Portland
Northwestern Division
Prepared 1 January 2003

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

1. NAVIGATION.

a. Channels and Harbors.

The FY 2004 program request of $52,514,000 provides for essential operation and maintenance work on 14 channel and harbor projects named in the list which follows. The work to be accomplished under this activity consists of maintaining the navigation channels and basins of coastal harbors by means of dredging, removal of navigation obstructions, and repair of navigation structures, as authorized in the laws adopting river and harbor projects.

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
IOWA			
Missouri River, Sioux City, Iowa to the Mouth, IA, NE, KS & MO	8,688,000 (4,667,000) (4,021,000)	7,615,000 (3,078,000) (4,537,000)	1. Endangered species monitoring & evaluation for the Pallid Sturgeon, Least Tern & Piping Plovers 2. None
OREGON			
Columbia and Lower Willamette Rivers below Vancouver, WA and Portland, OR	14,770,000 (545,000) (14,225,000)	16,674,000 (1,034,000) (15,640,000)	1. Hydrographic surveys, endangered species activities 2. Dredging
Columbia River at the Mouth OR and WA	6,632,000 (84,000) (6,548,000)	10,028,000 (411,000) (9,617,000)	1. Hydrographic surveys, endangered species activities 2. Dredging.
Columbia River between Vancouver, WA and The Dalles, OR	526,000 (94,000) (432,000)	382,000 (120,000) (262,000)	1. Hydrographic surveys. 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

1. NAVIGATION. (Continued)

a. Channels and Harbors. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
OREGON (Continued)			
Coos Bay	5,494,000	3,598,000	
	(144,000)	(172,000)	1. Hydrographic surveys.
	(5,350,000)	(3,426,000)	2. Dredging.
Port Orford	606,000	0	
	(18,000)	(0)	1. Hydrographic surveys.
	(588,000)	(0)	2. None.
Siuslaw River	466,000	0	
	(54,000)	(0)	1. Hydrographic surveys, jetty monitoring.
	(412,000)	(0)	2. None.
Skipanon Channel	5,000	0	
	(0)	(0)	1. Real estate activitites.
	(5,000)	(0)	2. None.
Tillamook Bay and Bar	15,000	0	
	(15,000)	(0)	1. Real estate activities, jetty monitoring.
	(0)	(0)	2. None.

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

1. NAVIGATION. (Continued)

a. Channels and Harbors. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
OREGON (Continued)			
Umpqua River	963,000	0	
	(61,000)	(0)	1. Hydrographic surveys, jetty monitoring.
	(902,000)	(0)	2. None.
Yaquina Bay and Harbor	1,450,000	1,228,000	
	(73,000)	(64,000)	1. Hydrographic surveys.
	(1,377,000)	(1,164,000)	2. Dredging.
WASHINGTON			
Bellingham Harbor	0	50,000	
	(0)	(50,000)	1. Dredging
	(0)	(0)	2. None.
Everett Harbor and Snohomish River	1,355,000	1,579,000	
	(45,000)	(59,000)	1. ESA studies
	(1,310,000)	(1,520,000)	2. Dredging
Grays Harbor and Chehalis River	8,781,000	8,377,000	
	(808,000)	(460,000)	1. No crab mitigation/wildlife monitoring FY04.
	(7,973,000)	(7,917,000)	2. None

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

a. Channels and Harbors. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
WASHINGTON (Continued)			
Lake Crockett (Keystone Harbor)	0	7,000	
	(0)	(7,000)	1. ERGO assesment
	(0)	(0)	
Puget Sound and Its Tributary Waters	999,000	961,000	
	(0)	(0)	1. None.
	(999,000)	(961,000)	2. None.
Quillayute River	975,000	0	
	(0)	(0)	1. None
	(975,000)	(0)	2. Dredging.
Seattle Harbor	640,000	985,000	
	(40,000)	(49,000)	1. Increased studies.
	(600,000)	(936,000)	2. Dredging.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

1. NAVIGATION. (Continued)
a. Channels and Harbors. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
WASHINGTON (Continued)			
Swimomish Channel	0	520,000	
	(0)	(50,000)	1. Survey
	(0)	(470,000)	2. Dredging
Willapa River and Harbor	492,000	510,000	
	(78,000)	(87,000)	1. Surveys/regional sediment management
	(414,000)	(423,000)	2. None.
TOTAL - CHANNELS AND HARBORS	52,857,000	52,514,000	
	(6,726,000)	(5,641,000)	
	(46,131,000)	(46,873,000)	

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

1. NAVIGATION. (Continued)

b. Locks and Dams.

The FY 2004 program request of $6,521,000 provides the amount for operational requirements of two projects. Annual requirements are for operation and ordinary maintenance of project facilities; facility security, labor, supplies, materials and parts required for the day-to-day functioning of projects; and periodic maintenance, repairs, replacement and modernization.

The requested amount includes an amount from the Inland Waterways Trust Fund (IWTF) equal to 1/4 of the total costs of operation and maintenance of inland waterways having averaged more than 5 billion ton-miles of traffic per year for the past 5 years, and 1/2 of the total costs of operation and maintenance of all other inland waterways.

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
OREGON			
Willamette River at Willamette Falls	344,000 (344,000) (0)	259,000 (259,000) (0)	 1. Reduced operations of locks. 2. None.
WASHINGTON			
Lake Washington Ship Canal	7,479,000 (5,421,000) (2,058,000)	6,262,000 (5,917,000) (345,000)	 1. Increase ESA/seismic studies 2. Decrease in maintenance
TOTAL - LOCKS AND DAMS	7,823,000 (5,765,000) (2,058,000)	6,521,000 (6,176,000) (345,000)	
TOTAL - NAVIGATION	60,680,000 (12,491,000) (48,189,000)	59,035,000 (11,817,000) (47,218,000)	

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL.

a. Reservoirs.

The FY 2004 program request of $44,493,000 is for the operation and maintenance of 35 flood control reservoirs and includes essential repair work and scheduling of flood control reservoir operations within the Division. Annual requirements are for operation and ordinary maintenance of project facilities; labor, supplies, material and parts required for day-by-day functioning of projects; periodic maintenance, repairs, and replacements; and contract law enforcement. The requested amount also includes application of special recreation use fees for recreation areas.

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
COLORADO			
Bear Creek Lake	315,000	282,000	
	(293,000)	(272,000)	1. Decreased routine water mgmt analysis/data collection
	(22,000)	(10,000)	2. Decreased routine land acquisiton and disposal mgmt.
Chatfield Lake	1,225,000	1,690,000	
	(798,000)	(773,000)	1. Decrease in routine flood damage reduction and environmental stewardship mgmt.
	(427,000)	(917,000)	2. Increased project security requirements.
Cherry Creek Lake	894,000	839,000	
	(476,000)	(479,000)	1. None
	(418,000)	(360,000)	2. None.
IDAHO			
Lucky Peak Lake	1,488,000	2,167,000	
	(1,036,000)	(1,087,000)	1. None.
	(452,000)	(1,080,000)	2. Increased project security requirements.

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL. (Continued).

a. Reservoirs. (Continued).

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
IOWA			
Rathbun Lake	2,189,000	3,438,000	
	(1,726,000)	(1,635,000)	1. None.
	(463,000)	(1,803,000)	2. Increased project security requirements.
KANSAS			
Clinton Lake	1,934,000	1,857,000	
	(1,470,000)	(1,403,000)	1. None.
	(464,000)	(454,000)	2. None.
Hillsdale Lake	752,000	759,000	
	(557,000)	(590,000)	1. None.
	(195,000)	(169,000)	2. None.
Kanopolis Lake	1,521,000	1,269,000	
	(1,002,000)	(1,022,000)	1. None.
	(519,000)	(247,000)	2. None.
Melvern Lake	2,034,000	1,731,000	
	(1,398,000)	(1,471,000)	1. None.
	(636,000)	(260,000)	2. None.

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL. (Continued).

a. Reservoirs. (Continued).

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
KANSAS (Continued)			
Milford Lake	1,997,000	2,783,000	
	(1,495,000)	(1,511,000)	1. None.
	(502,000)	(1,272,000)	2. None.
Perry Lake	2,111,000	2,090,000	
	(1,549,000)	(1,515,000)	1. None.
	(562,000)	(575,000)	2. None.
Pomona Lake	1,897,000	1,931,000	
	(1,418,000)	(1,431,000)	1. None.
	(479,000)	(500,000)	2. None.
Tuttle Creek Lake	2,106,000	1,839,000	
	(1,701,000)	(1,352,000)	1. Funds reduction for Biological Opinion.
	(405,000)	(487,000)	2. None.
Wilson Lake	1,846,000	1,377,000	
	(1,223,000)	(1,234,000)	1. None.
	(623,000)	(143,000)	2. Continuing Stilling Basin repairs FY03.

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL. (Continued).

a. Reservoirs. (Continued).

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
MISSOURI			
Little Blue River Lakes	935,000	850,000	
	(740,000)	(719,000)	1. None.
	(195,000)	(131,000)	2. None.
Long Branch Lake	980,000	875,000	
	(771,000)	(699,000)	1. None.
	(209,000)	(176,000)	2. None.
Pomme de Terre Lake	2,168,000	1,828,000	
	(1,599,000)	(1,605,000)	1. None.
	(569,000)	(223,000)	2. None.
Smithville Lake	1,070,000	1,118,000	
	(834,000)	(887,000)	1. None.
	(236,000)	(231,000)	2. None.
NEBRASKA			
Harlan County Lake	2,025,000	1,486,000	
	(1,509,000)	(1,304,000)	1. Elimination of Dam Safety Assurance Program continuing recon strudy.
	(516,000)	(182,000)	2. None.

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL. (Continued).

a. Reservoirs. (Continued).

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
NEBRASKA (Continued)			
Papillion and Tributaries Lakes	669,000 (634,000) (35,000)	564,000 (509,000) (55,000)	 1. Reduction in periodic Dam Safety inspections. 2. None.
Salt Creek and Tributaries	925,000 (866,000) (59,000)	708,000 (658,000) (50,000)	 1. Reduction in Dam Safety inspections. 2. None.
NORTH DAKOTA			
Bowman-Haley Lake	177,000 (175,000) (2,000)	163,000 (161,000) (2,000)	 1. Reduction in Dam Safety Instrumentation Surveys. 2. None.
Pipestem Lake	395,000 (384,000) (11,000)	461,000 (447,000) (14,000)	 1. Noxioius weed control added, increased water mgmt data collecton. 2. None.
OREGON			
Applegate Lake	729,000 (640,000) (89,000)	666,000 (585,000) (81,000)	 1. None. 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL. (Continued).

a. Reservoirs. (Continued).

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
OREGON (Continued)			
Blue River Lake	220,000	261,000	
	(200,000)	(237,000)	1. Increased activities for endangered species.
	(20,000)	(24,000)	2. None.
Cottage Grove Lake	842,000	724,000	
	(596,000)	(513,000)	1. Reduced flood damage reduction activities.
	(246,000)	(211,000)	2. None.
Dorena Lake	635,000	535,000	
Tributaries	(450,000)	(377,000)	1. Reduced flood damage reduction activities.
	(185,000)	(158,000)	2. None.
Fall Creek Lake	419,000	464,000	
	(328,000)	(378,000)	1. Increased activities for endangered species.
	(91,000)	(86,000)	2. None.
Fern Ridge Lake	989,000	956,000	
	(618,000)	(637,000)	1. None.
	(371,000)	(319,000)	2. None.
Willow Creek Lake	714,000	599,000	
	(561,000)	(466,000)	1. Reduced flood damage reduction activities.
	(153,000)	(133,000)	2. None.

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL. (Continued).

a. Reservoirs. (Continued).

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
SOUTH DAKOTA			
Cold Brook Lake	211,000	238,000	
	(202,000)	(228,000)	1. Increased routine Water Mgmt Analysis/Data Collection
	(9,000)	(10,000)	2. None.
Cottonwood Springs Lake	184,000	192,000	
	(168,000)	(178,000)	1. Increased routine Water Mgmt Analysis/Data Collection
	(16,000)	(14,000)	2. None.
WASHINGTON			
Howard A. Hanson Reservoir	1,777,000	2,050,000	
	(1,037,000)	(1,005,000)	1. None
	(740,000)	(1,045,000)	2. Maintenance backlog. Corrosion stoplog
Mill Creek, Virgil B. Bennington Lake	947,000	1,196,000	
	(672,000)	(703,000)	1. None.
	(275,000)	(493,000)	2. None.
Mud Mountain Dam	2,075,000	2,931,000	
	(1,415,000)	(1,863,000)	1. Additional study
	(660,000)	(1,068,000)	2. Maintenance:underground power. Maintenance cut in FY03

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL. (Continued).

a. Reservoirs. (Continued).

1) Scheduling Reservoir Operations. The FY 2004 program request of $1,576,000 supports preparation, review and updating of water control manuals, real-time data collection to monitor hydrologic conditions, and the issuance of date regulation instructions as necessary at non-Corps dam and reservoir projects at which the Corps is responsible for flood control or navigation.

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
Scheduled Reservoir Operations	1,515,000	1,576,000	
State:			
Idaho	(371,000)	(394,000)	1. None.
Nebraska	0	(0)	1. None.
Missouri	(296,000)	(316,000)	1. None.
Montana	(100,000)	(87,000)	1. Adjustment between States.
North Dakota	(68,000)	(113,000)	1. Adjustment between States.
Oregon	(71,000)	(60,000)	1. None.
South Dakota	(69,000)	(48,000)	1. Adjustment between States.
Washington	(407,000)	(472,000)	1. Nonroutine work for FERC relicensing and programmatic biological assessments
	(32,000)	(0)	2. None.
Wyoming	(101,000)	(86,000)	1. Adjustment between States.
TOTAL - RESERVOIRS	42,910,000	44,493,000	
	(32,056,000)	(31,510,000)	
	(10,854,000)	(12,983,000)	

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL. (Continued)

b. Channels.

1) Channel Improvements, Inspection and Miscellaneous Maintenance. The FY 2004 program request of $3,394,000 provides for the essential annual and periodic maintenance requirements of six flood control protection projects and inspection of completed works within the Division during the budget year.

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
IOWA			
Missouri River - Kenslers	147,000	157,000	
Bend, NE to Sioux City, IA	(94,000)	(102,000)	1. Increased routine Water Mgmt Analysis/Data Collection
	(53,000)	(55,000)	2. None.
OREGON			
Willamette River Basin Bank	67,000	58,000	
Protection	(67,000)	(58,000)	1. Fewer inspections.
	(0)	(0)	2. None.
WASHINGTON			
Mt. St. Helens	321,000	263,000	
	(263,000)	(233,000)	1. Reduced flood damage reduction activities.
	(58,000)	(30,000)	2. None.
Stillaguamish River	247,000	254,000	
	(0)	(0)	1. None.
	(247,000)	(254,000)	2. None.
Tacoma-Puyallup Rivers	127,000	115,000	
	(31,000)	(32,000)	1. None
	(96,000)	(83,000)	2.Cyclical work in FY03 not done in FY04

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL. (Continued)

b. 1) Channel Improvements, Inspection and Miscellaneous Maintenance. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
WYOMING			
Jackson Hole Levees	1,233,000	1,217,000	
	(53,000)	(56,000)	1. None.
	(1,180,000)	(1,161,000)	2. None.
Other Projects Maintained Periodically	0	0	
	(0)	(0)	1. None.
	(0)	(0)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL. (Continued)

b. Channels (Continued)

2) Inspection of Completed Works. The FY 2004 program request of $1,330,000 supports inspections at flood control projects constructed by the Corps and operated and maintained by non-Federal interests. The inspections are conducted to determine the extent of compliance with legal standards and to advise local interests, as necessary, of corrective measures required to ensure that project structures and facilities will continue to safely provide flood protection benefits. These projects consist of features such as channels, levees, flood walls, drainage structures and pumping plants.

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
Inspection of Completed Works	1,305,000	1,330,000	
State:			
Colorado	(28,000)	(8,000)	1. Adjustment between States.
Idaho	(81,000)	(72,000)	1. None.
Iowa	(78,000)	(90,000)	1. Adjustment between States.
Missouri	(532,000)	(532,000)	1. None.
Montana	(40,000)	(12,000)	1. Adjustment between States.
North Dakota	(15,000)	(6,000)	1. Adjustment between States.
Nebraska	(78,000)	(122,000)	1. Adjustment between States.
Oregon	(172,000)	(161,000)	1. None.
South Dakota	(24,000)	(21,000)	1. Adjustment between States.
Washington	(257,000)	(295,000)	1. Increase ESA studies.
Wyoming	(0)	(11,000)	1. Adjustment between States.
TOTAL - CHANNEL IMPROVEMENTS, INSPECTIONS AND MISCELLANEOUS	3,447,000 (1,813,000) (1,634,000)	3,394,000 (1,811,000) (1,583,000)	
TOTAL - FLOOD CONTROL	46,357,000 (33,869,000) (12,488,000)	47,887,000 (33,321,000) (14,566,000)	

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

3. MULTIPLE PURPOSE POWER PROJECTS. The FY 2004 program request of $128,630,000 for the operation and maintenance of 28 multiple purpose projects provides the amount for operational requirements. Annual requirements are for operation and ordinary maintenance of project facilities; facility security, labor, supplies, materials and parts required for the day-by-day functioning of the projects; and periodic maintenance, repairs and replacements. The requested amount also includes application of special recreation use fees for recreation areas. Specific power costs and joint-use costs allocated to power for North Pacific area projects will be direct funded by Bonneville Power Administration.

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
IDAHO			
Albeni Falls Dam	1,677,000 1/	2,202,000 1/	
	(1,142,000)	(837,000)	1. Realigned OP/maintenance costs.
	(535,000)	(1,365,000)	2. Black Rock construction.
Dworshak Dam and Reservoir	3,951,000 1/	2,271,000 1/	
	(1,588,000)	(1,710,000)	1. None.
	(2,363,000)	(561,000)	2. Increased project security requirements.
MISSOURI			
Harry S. Truman Dam and Reservoir	10,253,000	10,977,000	
	(4,379,000)	(4,416,000)	1. None.
	(5,874,000)	(6,561,000)	2. Increased hydropower maintenance FY04.
Stockton Lake	4,268,000	5,362,000	
	(2,346,000)	(2,338,000)	1. None.
	(1,922,000)	(3,024,000)	2. None.

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

3. MULTIPLE PURPOSE POWER PROJECTS. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
MONTANA			
Fort Peck Dams and Lake	7,354,000 (3,769,000) (3,585,000)	5,413,000 (2,697,000) (2,716,000)	1. No Flow Modification funds in FY04. 2. Decrease funds for replacement of Unit 1,2&3 Voltage regulator.
Libby Dam, Lake Koocanusa	1,505,000 1/ (1,029,000) (476,000)	1,453,000 1/ (1,105,000) (348,000)	1. None 2. None.
NEBRASKA			
Gavins Point Dam, Lewis and Clark Lake, NE & SD	7,199,000 (4,025,000) (3,174,000)	8,422,000 (3,813,000) (4,609,000)	1. No BiOp-A Pallid Sturgeon, Interior Least Tern, Piping Plover activity in FY04. 2. Increased project security requirements.
Missouri River Master Water Control Manual, NE, IA, KS,	500,000 (500,000) (0)	350,000 (350,000) (0)	1. Decreased Master Manual effort Fiscal Year 04. 2. None.
NORTH DAKOTA			
Garrison Dam Lake	11,939,000 (5,884,000) (6,055,000)	12,664,000 (5,784,000) (6,880,000)	1. No BiOp-A Pallid Sturgeon, Interior Least Tern, Piping Plover activity in FY04. 2. Minor overhaul 230KV Unit Transformers and increased project security requirements.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

3. MULTIPLE PURPOSE POWER PROJECTS. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
OREGON			
Bonneville Lock and Dam	5,043,000 1/ (2,962,000) (2,081,000)	4,849,000 1/ (2,672,000) (2,177,000)	1. None. 2. None
Cougar Lake	732,000 1/ (573,000) (159,000)	3,577,000 1/ (989,000) (2,588,000)	1. Increased activities for endagnered species 2. Increased project security requirements.
Detroit Lake	588,000 1/ (482,000) (106,000)	2,002,000 1/ (593,000) (1,409,000)	1. Increased activities for endagnered species 2. Increased project security requirements.
Green Peter-Foster Lake	1,122,000 1/ (904,000) (218,000)	2,545,000 1/ (1,083,000) (1,462,000)	1. Increased activities for endagnered species 2. Increased project security requirements.
Hills Creek Lake	401,000 1/ (309,000) (92,000)	4,895,000 1/ (393,000) (4,502,000)	1. Increased activities for endagnered species 2. Increased project security requirements.
John Day Lock and Dam	3,416,000 1/ (2,159,000) (1,257,000)	4,038,000 1/ (2,515,000) (1,523,000)	1. Increased activities for endagnered species 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

3. MULTIPLE PURPOSE POWER PROJECTS. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
OREGON (Continued)			
Lookout Point Lake	1,613,000 1/	2,027,000 1/	
	(1,381,000)	(1,625,000)	1. Increased activities for endagnered species
	(232,000)	(402,000)	2. None.
Lost Creek Lake	3,028,000 1/	5,154,000 1/	
	(2,593,000)	(2,393,000)	1. None.
	(435,000)	(2,761,000)	2. Increased project security requirements.
McNary Lock and Dam	4,626,000 1/	5,484,000 1/	
	(2,920,000)	(3,444,000)	1. None.
	(1,706,000)	(2,040,000)	2. Increased project security requirements.
SOUTH DAKOTA			
Big Bend Dam, Lake Sharpe	9,137,000	6,715,000	
	(4,378,000)	(4,330,000)	1. Decrease routine joint operation acitivty.
	(4,759,000)	(2,385,000)	2. Unit rewind 4&6 not in FY04
Ft Randall Dam Lake	9,016,000	6,873,000	
Francis Case	(4,606,000)	(4,786,000)	1. No BiOp-A pallid sturgeon in FY04.
	(4,410,000)	(2,087,000)	2. Oil spill prevention lagoon, renovate lighting and electrical distribution, and type U bushings not in FY04.
Missouri River between Ft.	500,000	410,000	
Peck , Dam, MT and Gavins	(500,000)	(410,000)	1. Decreased environmental impact studies FY 04.
Point Dam, SD & NE (section 33)	(0)	(0)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

3. MULTIPLE PURPOSE POWER PROJECTS. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
SOUTH DAKOTA (CONT)			
Oahe Dam, Lake Oahe	12,885,000 (5,592,000) (7,293,000)	13,768,000 (5,357,000) (8,411,000)	1. No cultural resource management plan in FY04 2. Increase for replacement of 13.8KV distribution and station service air circuit breakers in FY04.
WASHINGTON			
Chief Joseph Dam	853,000 1/ (636,000) (217,000)	711,000 1/ (595,000) (116,000)	1, None. 2. Completed a contract in FY03.
Ice Harbor Lock and Dam	5,065,000 1/ (2,010,000) (3,055,000)	7,770,000 1/ (2,198,000) (5,572,000)	1. None. 2. Increased project secruity requirements.
Little Goose Lock and Dam	1,268,000 1/ (803,000) (465,000)	1,342,000 1/ (991,000) (351,000)	1. None. 2. None.
Lower Granite Lock and Dam	5,244,000 1/ (1,473,000) (3,771,000)	2,074,000 1/ (1,595,000) (479,000)	1. None. 2. Confluence dredging not in FY04.
Lower Monumental Lock and Dam	3,291,000 1/ (1,277,000) (2,014,000)	2,004,000 1/ (786,000) (1,218,000)	1. Increased project secruity requirements. 2. Spillway stilling basin repair completed in FY03.

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

3. MULTIPLE PURPOSE POWER PROJECTS. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
The Dalles Lock & Dam	2,264,000 1/ (1,487,000) (777,000)	3,278,000 1/ (2,146,000) (1,132,000)	1. Increased activities for endagnered species 2. None.
TOTAL - MULTIPLE PURPOSE PROJECTS (118,738,000)	118,738,000 2/ (61,707,000) (57,031,000)	128,630,000 2/ (61,951,000) (66,679,000)	

1/ Specific power costs and joint-use costs allocated to power for this project will be direct funded by Bonneville Power Administration.

2/ Specific power costs and joint-use costs allocated to power for North Pacific area hydropower projects will be direct funded by Bonneville Power Administration.

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

4. PROTECTION OF NAVIGATION.

a. Project Condition Surveys

The $547,000 requested in FY 2004 supports hydrographic surveys, inspections, and studies to determine the condition of navigation channels that do not have any other maintenance work included in the budget request and disseminate the information to users of the projects. For the projects that do not require maintenance, surveys are performed at many of them in order to determine the degree of sedimentation so that users can be advised of channel conditions and future maintenance can be scheduled.

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
Project Condition Surveys (operations)	453,000	547,000	
State:			
Oregon	(200,000)	(200,000)	1. None.
Washington	(253,000)	(347,000)	1. Additional surveys in FY03.

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

4. PROTECTION OF NAVIGATION. (Continued)

b. Surveillance of Northern Boundary Waters

The $196,000 requested in FY 2004 supports meeting U.S. obligations under provisions of boundary water treaties and other international agreements. Data collection includes current velocity measurements, presence and intensity of ice, water levels, land use patterns and estimating potential damages caused by extreme levels. This information can be used to enhance water level forecasts, develop crises response plans, and provide advance warning to area residents and waterway users of impending floods or ice jams.

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
Surveillance of Northern Boundary Waters (operations)	194,000	196,000	
State:			
Oregon	(134,000)	(134,000)	1. None.
Washington	(60,000)	(62,000)	1. None.
TOTAL - PROTECTION OF NAVIGATION	647,000 (647,000) (0)	743,000 (743,000) (0)	

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

5. NATIONWIDE ACTIONS.

a. Missouri River Basin Collaborative Water Resource

The FY 2004 request of $0 does not allow continuing collaborative partnering efforts with the Missouri River Basin Association.

State Project Name	OBLIGATIONS Estimated FY 2003 ($) Total (Operations) (Maintenance)	Estimated FY 2004 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2003 to FY 2004 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000).
Missouri River Basin Collaborative			
Water Resource	45,000	0	
Planning/Partnering	(45,000)	(0)	1. Not funded in FY04.
	(0)	(0)	1. None.
	45,000	0	
TOTAL - MISSOURI RIVER BASIN	(45,000)	(0)	
COLLABORATIVE WATER	(0)	(0)	
RESOURCE PLANNING			
	3/	3/	
GRAND TOTAL	226,467,000	236,295,000	
	(108,759,000)	(107,832,000)	
	(117,708,000)	(128,463,000)	

3/ The following applies to North Pacific area power projects: Specific power costs and joint-use costs allocated to power will be direct funded by Bonneville Power Administration.